

ATTACHMENT C

ARTICLE V. – Overlay Zoning Districts

Division 1. Establishment and Purpose.

Section 5-1-1. General¹.

- (A) **Overlay Zoning Districts Establishment and Purpose.** This article establishes overlay districts, which apply additional standards to the development and design requirements of land in the County. These district standards exist as overlays to the existing underlying zoning districts, and, as such, the provisions for the overlay districts do not replace, but shall serve to supplement the underlying district provisions. King George County is hereby divided into the following overlay zoning districts:

Table 5.1 Overlay Zoning Districts	
All Overlay Districts	
CBPA	Chesapeake Bay Preservation Area Overlay
FMOD ²	Floodplain Management Overlay
HCOD	Highway Corridor Overlay
MCO	Military Compatibility Overlay ³

Section 5-1-2. Purpose and Intent of Overlay Districts.

- (A) **Chesapeake Bay Preservation Area Overlay⁴ (CBPA).**

- (1) **Findings of Fact.** The Chesapeake Bay, along with its tributaries, is one of the most important and productive estuarine systems in the world, providing economic and social benefits to the citizens of King George County and the Commonwealth of Virginia. The health of the Bay is vital to maintaining King George County's economy and the welfare of its citizens.
- (2) The Chesapeake Bay waters have been degraded significantly by many sources of pollution, including non-point source pollution from land uses and development. Existing high-quality waters are worthy of protection from degradation to guard against further pollution. Certain lands that are proximate to shorelines have intrinsic water quality value due to the ecological and biological processes they perform. Other lands have severe development constraints from flooding, erosion, and soil limitations. With proper management, they offer significant ecological benefits by providing water quality maintenance and pollution control, as well as

¹ Editor's Note: This section contains new text that provides the overall purpose for overlay zoning districts.

² Editor's Note: Proposed abbreviation for the Floodplain Management Overlay; existing Ordinance does not provide one.

³ Editor's Note: The military compatibility overlay will be reviewed at the May 2022 worksession.

⁴ Editor's Note: The existing Ordinance contains definitions pertinent to CBPO regulations; all definitions are proposed to be in Article XI of the draft Ordinance.

flood and shoreline erosion control. These lands together, designated by the Board of Supervisors as Chesapeake Bay Preservation Areas (hereinafter "CBPAs"), need to be protected from destruction and damage to protect the quality of water in the Bay and consequently the quality of life in King George County and the Commonwealth of Virginia.

- (3) **Applicability.** All land within King George County is designated as a Chesapeake Bay Preservation Area (CBPA) and is either classified as a Resource Protection Areas (RPA) or a Resource Management Area (RMA). Adherence to the CBPA regulations provided in this Division is required for all lots and parcels within King George County.
- (4) **Purpose.** This ordinance is enacted to implement the requirements of §62.1-44.15:67, et seq. of the Code of Virginia (The Chesapeake Bay Preservation Act). The purpose of the Chesapeake Bay Preservation Overlay is to:
 - (i) Protect existing high-quality state waters;
 - (ii) Restore all other state waters to a condition or quality that will permit all reasonable public uses and will support the propagation and growth of all aquatic life, including game fish, which might reasonably be expected to inhabit them;
 - (iii) Safeguard the clean waters of the Commonwealth from pollution;
 - (iv) Prevent any increase in pollution;
 - (v) Reduce existing pollution; and
 - (vi) Promote water resource conservation to provide for the health, safety, and welfare of the present and future citizens of King George County.
- (5) Unless otherwise stated in this Article, the review and approval procedures provided for in Article 3 of this Ordinance and Chapters 4 (Building and Building Regulations), Chapter 6 (Erosion and Settlement Control), and **Chapter XX, Wetlands Ordinance⁵** of the County Code shall be followed in reviewing and approving development, redevelopment, and uses governed by these Chesapeake Bay Preservation Overlay regulations.

(B) **Floodplain Management Overlay (FMOD).**

- (1) **Purpose.** The purpose of the floodplain management overlay provisions are to prevent:
 - (i) The loss of life and property;
 - (ii) The creation of health and safety hazards;
 - (iii) The disruption of commerce and governmental services;
 - (iv) The extraordinary and unnecessary expenditure of public funds for flood protection and relief; and
 - (v) The impairment of the tax base by:

⁵ Editor's Note: Berkley Group recommends removing the Wetlands Ordinance from the existing Ordinance and supplying as a standalone chapter in the County Code.

1. Requiring all those uses, activities, and developments that do occur in flood-prone areas to be protected and/or flood-proofed against flooding and flood damage;
2. Regulating uses, activities, and development which, alone or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities, and frequencies;
3. Restricting or prohibiting certain uses, activities, and development from locating within areas subject to flooding; and
4. Protecting individuals from buying land and structures, which are unsuited for intended purposes because of flood hazards.

(C) **Highway Corridor Overlay (HCOD).**

(1) **Purpose.** The purpose of the HCOD is to:

- (i) Maintain the long-term safety and mobility function of Route 3 and Route 301;
- (ii) Limit the number of conflict points, thereby reducing the need for additional crossover locations and traffic signals;
- (iii) Promote improved pedestrian and vehicular circulation;
- (iv) Encourage land assembly and the most desirable use of land in accordance with the King George County Comprehensive Plan;
- (v) Encourage designs which produce a desirable relationship between individual buildings, the circulation systems and adjacent areas;
- (vi) Control signage, visibility obstructions and clutter; and
- (vii) Permit a flexible response of development to market factors as well as to provide incentives for development of a variety of land uses and activities of high quality.

(D) **Military Overlay. PLACEHOLDER.⁶**

⁶ Editor's Note: The military overlay will be drafted and reviewed at the May worksession.

Division 2. Chesapeake Bay Preservation Area Overlay⁷ (CBPA).

Section 5-2-1. Additional Definitions.

For purposes of this Division, the following terms shall have the meanings respectively ascribed to them, unless the context clearly requires otherwise:

- (A) *Act*. The Chesapeake Bay Preservation Act, Article 2.5 (62.1-44.15:67 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.
- (B) *Best Management Practice (BMPs)*. A practice, or a combination of practices, that is determined by a state or designated area-wide planning agency to be the most effective, practical means of preventing or reducing the amount of pollution generated by non-point sources to a level compatible with water quality goals.
- (C) *Board*. The State Water Control Board.
- (D) *Buffer area*. An area of natural or established vegetation managed to protect other components of a Resource Protection Area and state waters from significant degradation due to land disturbances.
- (E) *Chesapeake Bay Preservation Act land-disturbing activity*. A land-disturbing activity including clearing, grading, or excavation that results in a land disturbance equal or greater than 2,500 square feet and less than one acre in all areas of jurisdictions designated as subject to the regulations adopted pursuant to the Chesapeake Bay Preservation Act, Code of Virginia, 62.1-44.15:67, et seq.
- (F) *Chesapeake Bay Preservation Area (CBPA)*. Any land designated by the Board of Supervisors pursuant to 9VAC25-830-70 of the Chesapeake Bay Preservation Area Designation Criteria, and 62.1-44.15:74 of the Code of Virginia. A Chesapeake Bay Preservation Area shall consist of a Resource Protection Area and a Resource Management Area.
- (G) *Construction footprint*. The area of all impervious surface including, but not limited to, buildings, roads and drives, parking areas, and sidewalks and the area necessary for construction of such improvements.
- (H) *Department*. The Department of Environmental Quality.
- (I) *Development*. The construction, or substantial alteration, of residential, commercial, industrial, institutional, recreation, transportation, or utility facilities or structures.
- (J) *Diameter at breast height (DBH)*. The diameter of a tree measured outside the bark at a point 4.5 feet above ground.
- (K) *Director*. The Director of the Department of Environmental Quality.

⁷ Editor's Note: This Division is predominately taken from the existing Ordinance as is; some additions have been made, and called-out with Editor's Notes and there has been minimal reorganizing of content and provisions.

- (L) *Dripline*. A vertical projection to the ground surface from the furthest lateral extent of a tree's leaf canopy.
- (M) *Erosion and Sediment Control Law*. Article 2.4 (62.1-44.15:51 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.
- (N) *Flood Plain*. All lands that would be inundated by flood water as a result of a storm event of a 100-year return interval.
- (O) *Highly erodible soils*. Soils (excluding vegetation) with an erodibility index (EI) from sheet and rill erosion equal to or greater than eight. The erodibility index for any soil is defined as a product of the formula $RKLS/T$, where K is the soil susceptibility to water erosion in the surface layer; R is the rainfall and runoff; LS is the combined effects of slope length and steepness; and T is the soil loss tolerance.
- (P) *Highly permeable soils*. Soils with a given potential to transmit water through the soil profile. Highly permeable soils are identified as any soil having a permeability equal to or greater than six inches of water movement per hour in any part of the soil profile to a depth of 72 inches (permeability groups “rapid” and “very rapid”) as found in the “National Soil Survey Handbook” of November 1996 in the “Field Office Technical Guide” of the U.S. Department of Agriculture Natural Resources Conservation Service.
- (Q) *Impervious cover*. A surface composed of any material that significantly impedes or prevents natural infiltration of water into the soil. Impervious surfaces include, but are not limited to roofs, buildings, streets, parking areas, and any concrete, asphalt, or compacted gravel surface.
- (R) *Infill*. Utilization of vacant land in previously developed areas.
- (S) *Intensely Developed Areas (IDAs)*. A portion of a Resource Protection Area or a Resource Management Area designated by the Board of Supervisors where development is concentrated and little of the natural environment remains per 9VAC25-830-100.
- (T) *Local governments*. Counties, cities, towns. This chapter applies to local governments in Tidewater Virginia as defined in 62.1-44.15:68 of the Act, but the provisions of this chapter may be used by other local governments.
- (U) *Local program*. The measures by which a local government complies with the Act and this chapter.
- (V) *Nontidal wetlands*. Those wetlands other than tidal wetlands that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the U.S. Environmental Protection Agency pursuant to Section 404 of the Federal Clean Water Act, in 33 C.F.R. 328.3b.
- (W) *Noxious weeds*. Weeds that are difficult to control effectively, such as Johnson Grass, Kudzu, and multiflora rose.

- (X) *Plan of Development.* Any process for site plan review in local zoning and land development regulation designed to ensure compliance with 62.1-44.15:74 of the Act and this chapter prior to issuance of a building permit.
- (Y) *Public road.* A publicly owned road designed and constructed in accordance with water quality protection criteria at least as stringent as requirements applicable to the Virginia Department of Transportation, including regulations promulgated pursuant to (i) the Erosion and Sediment Control Law and (ii) the Virginia Stormwater Management Act. This definition includes those roads where the Virginia Department of Transportation exercises direct supervision over the design or construction activities, or both, and cases where secondary roads are constructed or maintained, or both, by a local government in accordance with the standards of that local government.
- (Z) *Redevelopment.* The process of developing land that is or has been previously developed.
- (AA) *Resource Management Area (RMA).* The component of the Chesapeake Bay Preservation Area that is not classified as the Resource Protection Area.
- (BB) *Resource Protection Area (RPA).* The component of the Chesapeake Bay Preservation Area comprised of lands adjacent to water bodies with perennial flow that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation to the quality of state waters.
- (CC) *Silviculture activities.* Forest management activities, including but not limited to the harvesting of timber, the construction of roads and trails for forest management purposes, and the preparation of property for reforestation that are conducted in accordance with the silvicultural best management practices developed and enforced by the State Forester pursuant to Section 10.1-1105 of the Code of Virginia and are located on property defined as real estate devoted to forest use under Section 58.1-3230 of the Code of Virginia.
- (DD) *Substantial alteration.* Expansion or modification of a building or development that would result in a disturbance of land exceeding an area of 2,500 square feet in the Resource Management Area only.
- (EE) *Tidal shore or shore.* Land contiguous to a tidal body of water between the mean low water level and the mean high-water level.
- (FF) *Tidal wetlands.* Vegetated and non-vegetated wetlands as defined in Section 28.2-1300 of the Code of Virginia.
- (GG) *Tidewater Virginia.* Those jurisdictions named in 62.1-44.15: 68 of the Act.
- (HH) *Use.* An activity on the land other than development including, but not limited to, agriculture, horticulture, and silviculture.
- (II) *Virginia Stormwater Management Act.* Article 2.3 (62.1-44.15:24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.
- (JJ) *Water-dependent facility.* A development of land that cannot exist outside of the Resource Protection Area and must be located on the shoreline by reason of the intrinsic nature of its operation. These facilities include but are not limited to: (i) ports; (ii) the intake and outfall

structures of power plants, water treatment plants, sewage treatment plants, and storm sewers; (iii) marinas and other boat docking structures; (iv) beaches and other public water-oriented recreation areas; and (v) fisheries or other marine resources facilities.

Section 5-2-2. Applicability.

- (A) The Chesapeake Bay Preservation Area Overlay (CBPA) shall apply to all lands identified as Chesapeake Bay Preservation Areas (CBPAs) as designated by the Board of Supervisors and as shown on the Chesapeake Bay Map. The Chesapeake Bay Map, together with all explanatory matter thereon, is hereby adopted by reference and declared to be a part of this Article. The Chesapeake Bay Map shows the general location of CBPAs and should be consulted by persons contemplating activities within King George County prior to engaging in a regulated activity.
- (B) All area within the County (CPBA) is either designated as a Resource Protection Area (RPA) or as a Resource Management Area (RMA). Components of the CBPA include the following:
 - (1) **The Resource Protection Area (RPA)**, including:
 - (i) Tidal wetlands;
 - (ii) Nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow;
 - (iii) Tidal shores; and
 - (iv) A 100-foot vegetated buffer area located adjacent to and landward of the components listed in subsections i through iii, above, and along both sides of any water bodies with perennial flow.
 - (2) **The Resource Management Area (RMA)**, including:
 - (i) The remaining area of the County that is not identified as being within the RPA.
- (C) Portions of RPAs and RMAs designated by the Board of Supervisors as Intensely Developed Areas (IDA) shall serve as redevelopment areas. Areas so designated shall comply with all erosion and sediment control requirements and the performance standards for redevelopment in **Section 5-2-7**, Performance Standards.

Section 5-2-3. Interpretation of Resource Protection Area (RPA) Boundaries⁸.

- (A) Interpretation of Resource Protection Area (RPA) Boundaries shall be made as follows:
 - (1) **Delineation by the Applicant.** The site-specific boundaries of the RPA shall be determined by the applicant through the performance of an environmental site assessment as part of the Plan of Development Process or Water Quality Impact Assessment (WQIA), subject to approval by the Administrator and in accordance with **Section 5-2-9**, Plan of Development, and **Section 5-2-8**, Water Quality Impact Assessment, of this Article. The CBPA Overlay Map shall be used

⁸ Editor's Note: This section has been reorganized for streamlined content.

as a guide to the general location of RPAs; however, this does not relieve the applicant of the requirement that they perform site-specific determination of the RPA.

- (2) **Delineation by the Zoning Administrator**⁹. The Administrator may waive the requirement for an environmental site assessment and perform the delineation, when requested by an applicant wishing to construct a single-family dwelling. The Administrator may use hydrology, soils, plant species, and other data, and consult other appropriate resources as needed to perform the delineation.
- (3) **Delineation Confirmation or Conflict**. Where the applicant has provided a site-specific delineation of the RPA, the Administrator will verify the accuracy of the boundary delineation. In determining the site-specific RPA boundary, the Administrator may render adjustments to the applicant's boundary delineation, in accordance with [Section 5-2-9](#), Plan of Development. In the event the adjusted boundary delineation is contested by the applicant, the applicant may seek relief, in accordance with the provisions of [Section 5-2-11](#), Denial/Appeal of Plan.

Section 5-2-4. Conflict with Other Regulations.

In any case where the requirements of this Article conflict with any other provision of the King George County Code or existing state or federal regulations, whichever imposes the more stringent restrictions shall apply.

Section 5-2-5. Use Regulations.

Permitted uses, Special Exception uses, accessory uses, and special requirements shall be as established by the underlying zoning district, unless specifically modified by the requirements set forth herein.

Section 5-2-6. Lot Size.

Lot size shall be subject to the requirements of the underlying zoning district(s), provided that any lot shall have sufficient area outside the RPA to accommodate an intended development, in accordance with the performance standards in [Section 5-2-7](#), when such development is not otherwise allowed in the RPA.

Section 5-2-7. Performance Standards.

- (A) **Purpose and Intent**. The performance standards establish the means to minimize erosion and sedimentation potential, reduce land application of nutrients and toxins, and maximize rainwater infiltration. Natural ground cover, especially woody vegetation, is most effective in holding soil in place and preventing site erosion. Indigenous vegetation, with its adaptability to local conditions without the use of harmful fertilizers or pesticides, filters stormwater runoff. Minimizing impervious cover enhances rainwater infiltration and effectively reduces stormwater runoff

⁹ Editor's Note: Proposed as new text to allow the ZA to determine boundaries and waive assessments; this is permitted by Code of Virginia 9VAC25-830-110.

potential. The purpose and intent of these requirements are also to implement the following objectives:

- (1) Prevent a net increase in non-point source pollution from new development;
- (2) Achieve a 10% reduction in non-point source pollution from redevelopment; and
- (3) Achieve a 40% reduction in non-point source pollution from agricultural uses.

(B) **Required Conditions.**

- (1) All development and redevelopment equal to or greater than 2,500 square feet of land disturbance shall be subject to a plan of development process, including the approval of a site plan or a subdivision plat in accordance with the provisions of the Zoning and Subdivision Ordinance unless otherwise provided for.
- (2) Development in RPAs may be allowed only if it: (i) is water-dependent; or (ii) constitutes redevelopment meeting the criteria provided below:
 - (i) A new or expanded water-dependent facility may be allowed provided that the following criteria are met:
 1. It does not conflict with the Comprehensive Plan;
 2. It complies with the performance criteria set forth in [Section 5-2-7](#) of this Article;
 3. Any non-water-dependent component is located outside of the RPA; and
 4. Access to the water-dependent facility will be provided with the minimum disturbance necessary. Where practicable, a single point of access will be provided.
 - (ii) Redevelopment on isolated redevelopment sites outside of an area designated by King George County to be an IDA shall be permitted only if there is no increase in the amount of impervious cover and no further encroachment within the RPA and shall conform to the stormwater management criteria set forth in the Erosion and Sediment Control Law and the Virginia Stormwater Management Act and their attendant regulations, as well as all applicable stormwater management requirements of other state and federal agencies.
 - (iii) Roads and Driveways not exempt under subdivision B 1 of [9VAC25-830-150](#) and which, therefore, must comply with the provisions of the following:
 1. The Administrator makes a finding that there are no reasonable alternatives to aligning the road or driveway in or across the RPA;
 2. The alignment and design of the road or driveway are optimized, consistent with other applicable requirements, to minimize (i) encroachment of the RPA and (ii) adverse effects of on water quality;
 3. The design and construction of the road or driveway satisfy all applicable criteria of this Ordinance, including submission of a water quality impact assessment; and

4. The Administrator reviews the plan for the road or driveway proposed in or across the RPA in coordination with other local government, state, federal requirements, and development approvals.
 5. The plan for the road or driveway proposed in or across the RPA shall be coordinated with either a Site Plan in accordance with Article III, Permits and Applications, of this Ordinance, or a subdivision submittal in accordance with Article X, Subdivision, of this Ordinance.
- (iv) Flood control and stormwater management facilities that drain or treat water from multiple development projects, or from a significant portion of a watershed, may be allowed in an RPA provided such facilities are allowed and constructed in accordance with the Virginia Stormwater Management Act and its attendant regulations, and provided that:
1. The local government has conclusively established that location of the facility within the RPA is the optimum location;
 2. The size of the facility is the minimum necessary to provide necessary flood control or stormwater treatment, or both;
 3. The facility must be consistent with a comprehensive stormwater management plan developed and approved in accordance with **Chapter XX, Stormwater Management**¹⁰, of the King George County Code;
 4. All applicable permits for construction in state or federal waters must be obtained from the appropriate state and federal agencies, such as the U.S. Army Corps of Engineers, the department, and the Virginia Marine Resources Commission;
 5. Approval must be received from the local government prior to construction; and
 6. Routine maintenance is allowed to be performed on such facilities to assure that they continue to function as designed. It is not the intent of this subdivision to allow a best management practice that collects and treats runoff from only an individual lot or some portion of the lot to be located within an RPA.
- (3) A Water Quality Impact Assessment (WQIA) shall be required for any proposed use, land disturbance, development, or redevelopment within RPAs and for any development within RMAs when required by the Administrator, as provided in **Section 5-2-8** of this Article.
- (C) **General Performance Standards for Development or Redevelopment.**
- (1) Land disturbance shall be limited to the area necessary to provide for the proposed use or development.
 - (i) In accordance with an approved site plan, the limits of land disturbance, including clearing or grading shall be strictly defined by the construction footprint. These limits

¹⁰ Editor's Note: The existing Ordinance provides an article for stormwater management. Berkley Group proposes to remove from the Ordinance and make it a standalone chapter in the County Code.

- shall be clearly shown on submitted plans and physically marked on the development site.
- (ii) Ingress and egress during construction shall be limited to one access point, unless otherwise approved by the Administrator.
- (2) Indigenous vegetation shall be preserved to the maximum extent practicable consistent with the use or development proposed and in accordance with the Virginia Erosion and Sediment Control Handbook.
- (i) Site clearing for construction shall be allowed only to provide necessary access, positive site drainage, water quality BMPs, and the installation of utilities, as approved by the Administrator through the plan of development process.
 - (ii) Existing trees over 6 inches¹¹ diameter breast height (DBH) located outside of the construction footprint shall be preserved.
 - (iii) Diseased trees or trees weakened by age, storm, or other injury may be removed, when approved by the Administrator. Other woody vegetation on site shall also be preserved outside the approved construction footprint.
 - (iv) Prior to clearing or grading, suitable protective barriers, such as safety fencing, shall be erected 5 ft. outside of the dripline of any tree or stand of trees to be preserved. These protective barriers shall remain so erected throughout all phases of construction.
 - (v) The storage of equipment, materials, debris, or fill shall not be allowed within the area protected by the barrier.
- (3) Land development shall minimize impervious cover to promote infiltration of stormwater into the ground consistent with the proposed use or development.
- (i) Grid and modular pavements may be used for any required alley, or other low traffic driveway, unless otherwise approved by the Administrator.
 - (ii) Parking areas and driveways shall be designed to minimize impervious surfaces.¹²
- (4) Notwithstanding any other provisions of this Article and Chapter 6, Erosion and Sediment Control, of the King George County Code or exceptions or exemptions thereto, any land disturbing activity equal to or greater than 2,500 square feet, including construction of all single-family houses, septic tanks, and drainfields, shall comply with the requirements of Chapter 6, Erosion and Sediment Control, of the King George County Code.

11 Editor's Note: Proposed increase from 2 inches to 6 inches for DBH of existing trees within the construction footprint. The existing Ordinance's 2 inches is low compared to comparable communities; Westmoreland County requires 6 inches, Richmond County requires 10 inches, Stafford County does not supply a DBH, and Carolina County is similar to King George in requiring a DBH of 2 inches. This DBH requirement can remain at 2 inches or increased.

12 Editor's Note: Section 8.11.2 of the existing Ordinance provides detailed dimensions for parking; these have been removed and the provision made more general.

- (5) All on-site sewage disposal systems not requiring a Virginia Pollutant Discharge Elimination System (VPDES) permit shall¹³:
- (i) Have installed one of the three maintenance provisions:
 - 1. An inspection port;
 - 2. An effluent filter; or
 - 3. A reduced maintenance baffled tank.
 - (ii) Have pump-out accomplished for all such systems and provide written proof to the King George County Administrator that the system has been pumped by a licensed septic hauler on a form and in the manner set forth by the Administrator at least once every five years.
 - 1. In lieu of being required to provide proof of septic tank pump-out every five years, the property owner may submit documentation every five years, certified by an operator or on-site soil evaluator (OSE) licensed or certified under Chapter 23 (§ 54.1-2300 et seq.) of Title 54.1 as being qualified to operate, maintain, or design on-site sewage systems that the septic system has been inspected and is functioning properly, and that the tank does not need to have the effluent pumped out of it.
- (6) A reserve sewage disposal site with a capacity at least equal to that of the primary sewage disposal site shall be provided, in accordance with the King George County On-Site Sewage Disposal Ordinance.
- (i) This requirement shall not apply to any lot or parcel recorded prior to October 1, 1989, if such lot or parcel is not sufficient in capacity to accommodate a reserve sewage disposal site, as determined by the local Health Department.
 - 1. For any lot or parcel that has recorded adjustments or divisions after October 1, 1989, and resulted in a change to the original footprint of the recorded lot or parcel, the most recent recorded plat shall govern and must comply with 5-2-7 (6), above.
 - (ii) Building or construction of any impervious surface shall be prohibited on the area of all sewage disposal sites or on an onsite sewage treatment system which operates under a permit issued by the State Water Control Board, until the structure is served by public sewer.
- (7) Any Chesapeake Bay Preservation Act Land Disturbing Activity that is determined by the County to be grandfathered in accordance with **Chapter XX, Stormwater Management, of the King George County Code** shall comply with performance based or technology based technical criteria set forth below:
- (i) **Performance-based criteria.** For land-disturbing activities, the calculated post-development nonpoint source pollutant runoff load shall be compared to the calculated

¹³ Editor's Note: This provision has been updated to reflect the most recent VDH requirements, as directed by VDH via email from Steve Valentine dated 08/2021.

predevelopment load based upon the average land cover condition or the existing site condition. A BMP shall be located, designed, and maintained to achieve the target pollutant removal efficiencies specified in 9VAC25-870-96 C of the Virginia Stormwater Management Program (VSMP) regulations.

- (ii) **Technology-based criteria.** For land-disturbing activities, the post-developed stormwater runoff from the impervious cover shall be treated by an appropriate BMP as required by the post-developed condition percent impervious cover as specified in Table 1 of 9VAC25-870-96 C. The selected BMP shall be located, designed, and maintained to perform at the target pollutant removal efficiency specified in 9VAC25-870-96 C of the Virginia Stormwater Management Program (VSMP) regulations or those found in 9VAC25-870-65 of the VSMP regulations.
- (8) Prior to initiating grading or other on-site activities on any portion of a lot or parcel, all wetlands permits required by federal, state, and local laws and regulations shall be obtained and evidence of such submitted to the Administrator, in accordance with **Section 5-2-9**, Plan of Development, of this Article.
- (9) Land upon which agricultural activities are being conducted, including but not limited to crop production, pasture, and dairy and feedlot operations, or lands otherwise defined as agricultural land by King George County, shall have a soil and water quality conservation assessment conducted that evaluates the effectiveness of existing practices pertaining to soil erosion and sediment control, nutrient management, and management of pesticides, and, where necessary, results in a plan that outlines additional practices needed to ensure that water quality protection is being accomplished consistent with the Act and this chapter.¹⁴
- (i) Recommendations for additional conservation practices need address only those conservation issues applicable to the tract or field being assessed. Any soil and water quality conservation practices that are recommended as a result of such an assessment and are subsequently implemented with financial assistance from federal or state cost-share programs must be designed, consistent with cost-share practice standards effective in January 1999 in the "Field Office Technical Guide," as amended, of the U.S. Department of Agriculture Natural Resource Conservation Service or the June 2000 edition of the "Virginia Agricultural BMP Manual," as amended, of the Virginia Department of Conservation and Recreation, respectively. Unless otherwise specified in this section, general standards pertaining to the various agricultural conservation practices being assessed shall be as follows:
 1. For erosion and sediment control recommendations, the goal shall be, where feasible, to prevent erosion from exceeding the soil loss tolerance level, referred to as "T," as defined in the "National Soil Survey Handbook" of November 1996, as amended, in the "Field Office Technical Guide" of the U.S. Department of Agriculture Natural Resource

¹⁴ Editor's Note: Items (9) (i) through (iii) are proposed as new text that expands on recommendations for conservation practices. Staff has requested that BG look into the permissibility of this further and to confirm what other' localities require. This research will be discussed, and any changes proposed, at the Worksession.

Conservation Service. However, in no case shall erosion exceed the soil loss consistent with an Alternative Conservation System, referred to as an "ACS", as defined in the "Field Office Technical Guide" of the U.S. Department of Agriculture Natural Resource Conservation Service.

2. For nutrient management, whenever nutrient management plans are developed, the operator or landowner must provide soil test information, consistent with the Virginia Nutrient Management Training and Certification Regulations (4VAC50-85).
 3. For pest chemical control, referrals shall be made to the local cooperative extension agent or an Integrated Pest Management Specialist of the Virginia Cooperative Extension Service. Recommendations shall include copies of applicable information from the "Virginia Pest Management Guide", or other Extension materials related to pest control.
- (ii) A higher priority shall be placed on conducting assessments of agricultural fields and tracts adjacent to RPAs. However, if the landowner or operator of such a tract also has RMA fields or tracts in his operation, the assessment for that landowner or operator may be conducted for all fields or tracts in the operation. When such an expanded assessment is completed, priority must return to RPA fields and tracts.
- (iii) The findings and recommendations of such assessments and any resulting soil and water quality conservation plans will be submitted to the local Soil and Water Conservation District Board which will be the plan-approving authority.
- (D) **Buffer Area Requirements.** To minimize the adverse effects of human activities on the other components of Resource Protection Areas, state waters, and aquatic life, a 100-foot buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering non-point source pollution from runoff shall be retained if present and established where it does not exist.
- (1) The buffer area shall be located adjacent to and landward of other RPA components and along both sides of any water body with perennial flow. The full buffer area shall be designated as the landward component of the RPA, in accordance with Sections 5-2-2, Applicability, and Section 5-2-9, Plan of Development, of this Article.
 - (2) Where land uses such as agriculture or silviculture within the area of the buffer cease and the lands are proposed to be converted to other uses, the full 100-foot-wide buffer shall be reestablished. In reestablishing the buffer, management measures shall be undertaken to provide woody vegetation that assures the buffer functions as set forth in this Article.
 - (3) When replanting is required to establish a buffer, a combination of trees, groundcover, and shrubs with a demonstrated ability to improve water quality shall meet the intent of the buffer area.¹⁵

¹⁵ Editor's Note: Proposed as a new provision that tells what is suitable to be planted for reestablishing a buffer.

- (4) The 100-foot buffer area shall be deemed to achieve a 75% reduction of sediments and a 40% reduction of nutrients.
- (5) The buffer area shall be maintained to meet the following additional performance standards:
 - (i) To maintain the functional value of the buffer area, indigenous vegetation may be removed subject to approval by the Administrator only to provide for reasonable sight lines, access paths, general woodlot management, and best management practices including those that prevent upland erosion and concentrated flows of storm water, as follows:
 1. Trees may be pruned or removed as necessary to provide for sight lines and vistas provided that where removed, they shall be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion, and filtering non-point source pollution from runoff.
 2. Any path shall be constructed to effectively control erosion.
 3. Dead, diseased, or dying trees or shrubbery and noxious weeds (including, but not limited to, Japanese Stiltgrass, Phragmites, Johnson Grass, Kudzu and Multiflora Rose) may be removed and thinning of trees may be allowed, pursuant to sound horticultural practice incorporated into locally adopted standards.
 4. For shoreline erosion control projects, trees and woody vegetation may be removed, necessary control techniques employed, and appropriate vegetation established to protect or stabilize the shoreline in accordance with the best available technical advice and applicable permit conditions or requirements.
 - (ii) When the application of the buffer areas would result in the loss of a buildable area on a lot or parcel recorded prior to October 1, 1989, the Administrator may authorize encroachments into the buffer area in accordance with **Section 5-2-9**, Plan of Development, and the following criteria:
 1. Encroachments into the buffer areas shall be the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities;
 2. Where practicable, a vegetated area that will maximize water quality protection, mitigate the effects of the buffer encroachment, and is at a minimum equal to the area of encroachment into the buffer area shall be established elsewhere on the lot or parcel; and
 3. The encroachment may not extend into the seaward 50 feet of the buffer area.
 - (iii) On agricultural lands, the agricultural buffer area shall be managed to prevent concentrated flows of surface water from breaching the buffer area and appropriate measures may be taken to prevent noxious weeds (including, but not limited to, Japanese Stiltgrass, Phragmites, Johnson Grass, Kudzu and Multiflora Rose) from invading the buffer area. Agricultural activities may encroach into the buffer area as follows:

1. Agricultural activities may encroach into the landward 50 feet of the 100-foot wide buffer area when at least one agricultural best management practice which, in the opinion of the local soil and water conservation district board, addresses the more predominant water quality issue on the adjacent land erosion control or nutrient management is being implemented on the adjacent land, provided that the combination of the undisturbed buffer area and the best management practice achieves water quality protection, pollutant removal, and water resource conservation at least the equivalent of the 100-foot wide buffer area. If nutrient management is identified as the predominant water quality issue, a nutrient management plan, including soil tests, must be developed consistent with the Virginia Nutrient Training and Certification Regulations (4 VAC 5-15) administered by the Virginia Department of Conservation and Recreation.
2. Agricultural activities may encroach within the landward 75 feet of the 100-foot-wide buffer area when Agricultural Best Management Practices, which address erosion control, nutrient management, and pest chemical control, are being implemented on the adjacent land. The erosion control practices must prevent erosion from exceeding the soil loss tolerance level, referred to as “T,” as defined in the “National Soil Survey Handbook” of November 1996 in the “Field Office Technical Guide,” as amended, of the U.S. Department of Agriculture Natural Resource Conservation Service. A nutrient management plan, including soil tests, must be developed, consistent with the Virginia Nutrient Management Training and Certification Regulations (4 VAC 5-15) administered by the Virginia Department of Conservation and Recreation. In conjunction with the remaining buffer area, this collection of best management practices shall be presumed to achieve water quality protection at least the equivalent of that provided by the 100-foot-wide buffer area.
3. The buffer area is not required to be designated adjacent to agricultural drainage ditches if at least one best management practice which, in the opinion of the local Soil and Water Conservation District Board, addresses the more predominant water quality issue on the adjacent land either erosion control or nutrient management is being implemented on the adjacent land.
4. If specific problems are identified pertaining to agricultural activities which are causing pollution of the nearby water body with perennial flow or violate performance standards pertaining to the vegetated buffer area, the Administrator, in cooperation with Soil and Water Conservation District, shall recommend a compliance schedule to the landowner and require the problems to be corrected consistent with that schedule. This schedule shall expedite environmental protection while taking into account the seasons and other temporal considerations so that the probability for successfully implementing the corrective measures is greatest.
5. In cases where the landowner or his agent or operator has refused assistance from the Soil and Water Conservation District in complying with or documenting compliance with the agricultural requirements of this chapter, the District shall report the

noncompliance to the Director of the King George County Department of Community Development. The Director shall require the landowner to correct the problems within a specified period of time not to exceed 18 months from their initial notification of the deficiencies to the landowner. King George County, in cooperation with the District, shall recommend a compliance schedule to the landowner. This schedule shall expedite environmental protection while taking into account the seasons and other temporal considerations so that the probability for successfully implementing the corrective measures is greatest.

Section 5-2-8. Water Quality Impact Assessment (WQIA).

- (A) **Purpose and Intent.** The purpose of the water quality impact assessment (WQIA) is to:
- (1) Identify the impacts of proposed land disturbance, development or redevelopment on water quality and lands within RPAs;
 - (2) Ensure that, where land disturbance, development, or redevelopment does take place within RPAs and other sensitive lands, it will be located on those portions of a site and in a manner that will be least disruptive to the natural functions of RPAs and other sensitive lands;
 - (3) Protect individuals from investing funds for improvements proposed for location on lands unsuited for such development because of high ground water, erosion, or vulnerability to flood and storm damage;
 - (4) Provide for administrative relief from the terms of this Article when warranted and in accordance with the requirements contained herein; and
 - (5) Specify mitigation which will address water quality protection.
- (B) **Water Quality Impact Assessment (WQIA) Required.** A WQIA is required for:
- (1) Any proposed land disturbance, development, or redevelopment within an RPA, including any buffer area modification or encroachment as provided for in **Section 5-2-7**, Performance Standards, of this Article; or
 - (2) Any development in an RMA as deemed necessary by the Administrator due to the unique characteristics of the site or intensity of the proposed development.
- (C) **Two Levels of Assessment.** There shall be two levels of WQIA: a minor assessment and a major assessment.
- (D) **Minor WQIA.**
- (1) A minor WQIA pertains only to land disturbance, development, or redevelopment within CBPAs, which causes no more than 5,000 sq. ft. of land disturbance within CBPAs and proposes any encroachment into the landward 50 ft. of the 100-foot buffer area as permitted under Section 5-2-7 (D)(5)(ii). A minor assessment must demonstrate through acceptable calculations that the buffer area, enhanced vegetation, and necessary best management practices will result in removal of no less than 75% of sediments and 40% of nutrients from

post-development stormwater runoff. A minor assessment shall include a site drawing to scale, which shows the following:

- (i) Location of the components of the RPA, including the 100-foot buffer area;
- (ii) Location and nature of the proposed encroachment into the buffer area, including type of paving material; areas of clearing or grading; location of any structures, drives, or other impervious cover; and sewage disposal systems or reserve drainfield sites; and
- (iii) Type and location of proposed best management practices to mitigate the proposed encroachment.

(E) Major WQIA.

- (1) A major WQIA shall be required for any land disturbance, development, or redevelopment which:
 - (i) Exceeds 5,000 square feet of land disturbance within CBPAs and proposes to encroach into the landward 50 ft. of the 100-foot buffer area;
 - (ii) Disturbs any portion of the buffer area within 50 feet of any other component of an RPA; or
 - (iii) Is located solely in an RMA and is deemed necessary by the Administrator.
- (2) The information required in this section shall be considered a minimum, unless the Administrator determines that some of the elements are unnecessary due to the scope and nature of the proposed use and development of land.
- (3) The following elements shall be included in the preparation and submission of a major WQIA:
 - (i) All the information required in a minor WQIA, as specified in **Section 5-2-8 (D)**;
 - (ii) A hydrogeological element that:
 - 1. Describes the existing topography, soils, hydrology, and geology of the site and adjacent lands.
 - 2. Describes the impacts of the proposed development on topography, soils, hydrology, and geology on the site and adjacent lands.
 - 3. Indicates the following:
 - i. Disturbance or destruction of wetlands and justification for such action;
 - ii. Disruptions or reductions in the supply of water to wetlands, streams, lakes, rivers, or other water bodies;
 - iii. Disruption to existing hydrology including wetland and stream circulation patterns;
 - iv. Source location and description of proposed fill material;
 - v. Location of dredge material and location of dumping area for such material;
 - vi. Estimation of pre- and post-development pollutant loads in runoff;

- vii. Estimation of percent increase in impervious surface on site and type(s) of surfacing materials used;
 - viii. Percent of site to be cleared for project;
 - ix. Anticipated duration and phasing schedule of construction project; and
 - x. Listing of all requisite permits from all applicable agencies necessary to develop project.
4. Describes the proposed mitigation measures for the potential hydrogeological impacts. Potential mitigation measures include:
 - i. Proposed erosion and sediment control concepts in addition to those required by Chapter 6 of the County code, Erosion and Sediment Control; concepts may include minimizing the extent of the cleared area, perimeter controls, reduction of runoff velocities, measures to stabilize disturbed areas, schedule, and personnel for site inspection;
 - ii. Proposed stormwater management system for nonpoint source water quality and quantity control;
 - iii. Creation of wetlands to replace those lost; or
 - iv. Minimizing cut and fill.
5. Landscape and clearing elements that:
 - i. Identify and delineate the location of all significant plant material, including all trees on site two inches or greater diameter at breast height. Where there are groups of trees, stands may be outlined.
 - ii. Describe the impact the development or use will have on the existing vegetation. Information should include:
 - a. General limits of clearing, based on all anticipated improvements, including buildings, drives, and utilities;
 - b. Clear delineation of all trees and other woody vegetation which will be removed; and
 - c. Description of plant species to be disturbed or removed.
 - iii. Describes the potential measures for mitigation. Possible mitigation measures include:
 - a. Proposed design and replanting schedule for trees and other significant vegetation removed for construction, including a list of possible plants and trees to be used;
 - b. Demonstration that the revegetation plan supplements existing buffer vegetation in a manner that provides for pollutant removal, erosion, and runoff control;

- c. Demonstration that the design of the plan will preserve to the greatest extent possible any significant trees and vegetation on the site and will provide maximum erosion control and overland flow benefits from such vegetation; and
- d. Demonstration that indigenous plants are to be used to the greatest extent possible.

(F) Submission and Review Requirements.

- (1) Five (5) copies of all site drawings and other applicable information as required by Section 5-2-8 (D) and (E) above shall be submitted to the Administrator for review.
- (2) All information required in this section shall be certified as complete and accurate by a professional engineer for either major or minor WQIA or a certified land surveyor for minor water quality assessments only.
- (3) A minor WQIA shall be prepared and submitted to and reviewed by the Administrator in conjunction with Section 5-2-9, Plan of Development, of this Article.
- (4) A major WQIA shall be prepared and submitted to and reviewed by the Administrator in conjunction with a request for rezoning or a Special Exception Permit, or Section 5-2-9, Plan of Development, of this Article, as deemed necessary by the Administrator.
- (5) As part of any major WQIA submittal, the Administrator may require review the Chesapeake Bay Local Assistance department (CBLAD). Upon receipt of a major WQIA, the Administrator will determine if such review is warranted. Any comments by the CBLAD will be incorporated into the final review by the Administrator provided that such comments are provided within 90 days of the request.

(G) Evaluation Procedure.

- (1) Upon completed review of a minor WQIA, the Administrator will determine if any proposed encroachment into the buffer area is consistent with the provisions of this Article and make a finding based upon the following criteria in conjunction with Section 5-2-9, Plan of Development:
 - (i) The necessity of the proposed encroachment and the ability to place improvements elsewhere on the site to avoid disturbance of the buffer area;
 - (ii) Impervious surface is minimized;
 - (iii) Proposed mitigation measures, including the revegetation plan and site design, result in minimal disturbance to all components of the RPA, including the 100-foot buffer area;
 - (iv) Proposed mitigation will work to retain all buffer area functions: pollutant removal, erosion and runoff control;
 - (v) Proposed best management practices, where required, achieve the requisite reductions in pollutant loadings;

- (vi) The development, as proposed, meets the purpose and intent of the Article; and
 - (vii) The cumulative impact of the proposed development, when considered in relation to other development in the vicinity, both existing and proposed, will not result in a significant degradation of water quality.
- (2) Upon the completed review of a major water quality impact assessment, the Administrator will determine if the proposed development is consistent with the purpose and intent of this Article and make a finding based upon the following criteria:
- (i) Within any RPA, the proposed development is water-dependent or is redevelopment;
 - (ii) The disturbance of any wetlands will be minimized;
 - (iii) The development will not result in significant disruption of the hydrology of the site;
 - (iv) The development will not result in unnecessary destruction of plant materials on the site;
 - (v) Proposed erosion and sediment control concepts are adequate to achieve the reductions in runoff and prevent off-site sedimentation;
 - (vi) Proposed stormwater management concepts are adequate to control the stormwater runoff to achieve the required performance standard for pollutant control;
 - (vii) Proposed revegetation of disturbed areas will provide runoff control and pollutant removal equivalent of the full 100-foot undisturbed buffer area and provide optimum erosion and sediment control benefits;
 - (viii) The design and location of any proposed drainfield will be in accordance with the requirements of Section 5-2-7, Performance Standards, of this Article and Article X, Subdivision.
 - (ix) The cumulative impact of the proposed development, when considered in relation to other development in the vicinity, both existing and proposed, will not result in significant degradation of water quality.
- (3) The Administrator shall require additional mitigation where potential impacts have not been adequately addressed. Evaluation of mitigation measures will be made by the Administrator based on the criteria listed in Sections 5-2-8 (G)(1) and (G)(2), above.
- (4) The Administrator shall find the proposal to be inconsistent with the purpose and intent of this Article when the impacts created by the proposal cannot be mitigated. Evaluation of the impacts will be made by the Administrator based on the criteria listed in Sections 5-2-8 (G)(1) and (G)(2), above.

Section 5-2-9. Plan of Development.

- (A) **Purpose and Intent**¹⁶. This section is enacted to ensure compliance with this Ordinance and all applicable ordinances and regulations to protect and enhance the values of the natural

¹⁶ Editor's Note: Proposed as new text.

environment in King George County, to protect the economic value of the natural environment from unwise and disorderly development, to ensure the efficient use of land, and to create standards in the layout, design, landscaping, and construction of development.

(B) **Applicability.**

- (1) Any development or redevelopment equal to or greater than 2,500 square feet of land disturbance in the CBPA shall be accomplished through a Plan of Development process prior to any development activities or site work such as clearing or grading of the site or the issuance of any building permit, to ensure compliance with all applicable requirements of:
 - (i) This Article, unless otherwise provided for;
 - (ii) The Virginia Erosion and Sediment Control Law; and
 - (iii) The Stormwater Management Requirements of King George County.
- (2) Pre-Application Conference¹⁷. Prior to submitting a Plan of Development, the applicant should schedule a pre-application conference with the Administrator. Sketched plans may be submitted prior to or on the conference date. Due to the existing site conditions, the Administrator may waive certain requirements of the Plan of Development process.

(C) **Required Information¹⁸**. In addition to all requirements of this Ordinance, and any other related ordinances, regulations, or laws, the Plan of Development process shall consist of the plans and studies identified below. These required plans or studies may be coordinated or combined, as deemed appropriate by the Administrator. The Administrator may determine that some of the following information is unnecessary due to the scope and nature of the proposed development.

- (1) A Site Plan, in accordance with the provisions of Article III, Permits and Application, of this Ordinance, or a subdivision plat in accordance with the provisions of Article X, Subdivision, of this Ordinance.
- (2) An environmental site assessment, in accordance with Section 5-2-9 (E) of this Division.
- (3) A landscaping plan, in accordance with the provisions of Article VIII, Community Design Standards, of this Ordinance;
- (4) A stormwater management plan, consistent with provisions of Chapter XX, Stormwater Management, of the King George County Code¹⁹; and
- (5) An erosion and sediment control plan in accordance with the provisions of Chapter 6, Erosion and Sediment Control Ordinance, of the King George County Code. However, for single-family dwellings with no RPA encroachment an agreement in lieu of a plan may be entered into with the County.

¹⁷ Editor's Note: Proposed as a new provision to require a Pre-Application meeting for development in the CBPA.

¹⁸ Editor's Note: Propose to provide all landscaping requirements in Article 8; reference has been included here.

¹⁹ Editor's Note: The existing Ordinance provides an article for stormwater management. Berkley Group proposes to remove from the Ordinance and make it a standalone chapter in the County Code.

- (6) Single-family dwellings with no RPA encroachment may submit a plot plan in lieu of a site plan; and shall not require an environmental assessment, landscaping plan, or stormwater management plan.
- (D) **Plot Plan Requirements for Single-Family Dwellings.** A plot plan for individual single-family dwellings, additions to such dwellings and accessory buildings shall be submitted to the Administrator. At a minimum, the plot plan shall be drawn to scale and contain the following:
- (1) A boundary survey of the site (if available) or site drawing showing the north arrow and property line measurements.
 - (2) Area of the lot/parcel.
 - (3) Location, dimensions, and use of proposed and existing structures including marine and temporary structures. In the case of temporary structures, the date when the structures will be removed must be indicated.
 - (4) Location of all building restriction lines, setbacks, easements, covenant restrictions and rights-of-way.
 - (5) Dimensions and location of all driveways, parking areas, or any other impervious surfaces.
 - (6) Location of all existing and proposed septic tanks and drainfield areas including reserve areas and the location of all existing and proposed wells.
 - (7) Limits of all clearing and grading.
 - (8) Location of the limits of the RPA, including any water bodies with perennial flow, and any additional required buffer areas.
 - (9) Location of all erosion and sediment control devices.
 - (10) If the total percentage of the proposed post development impervious surfaces exceeds 16% of the total site area, a storm water management plan as required in **Chapter XX, Stormwater Management, of the King George County Code²⁰** must be submitted.
 - (11) Any encroachment into the RPA shall require the applicant to comply with all aspects of the Plan of Development process, as applicable, and submit a Water Quality Impact Assessment.
- (E) **Environmental Site Assessment.** An environmental site assessment shall be submitted in conjunction with Site Plan or preliminary subdivision plan approval applications²¹. The Administrator may waive²² the requirements of the environmental site assessment provided no part of the lot or parcel being developed is within the RPA boundaries, as determined by the

²⁰ Editor's Note: The existing Ordinance provides an article for stormwater management. Berkley Group proposes to remove from the Ordinance and make it a standalone chapter in the County Code.

²¹ Editor's Note: The existing Ordinance text says that the ESA must be submitted with plan approval; proposing to clarify that this would be required at the application stage.

²² Editor's Note: Proposed text addition that allows for the ZA to waive ESA requirements.

County. If the developer disagrees with the determination of RPA boundaries by the County, they shall submit an environmental site assessment to establish boundaries.

- (1) The environmental site assessment shall be drawn to scale and clearly delineate the following environmental features:
 - (i) Tidal wetlands;
 - (ii) Tidal shores;
 - (iii) Nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow;
 - (iv) A 100-foot buffer area located adjacent to and landward of the components listed in subsections (i) through (iii) above, and along both sides of or water bodies with perennial flow;
 - (v) Wetlands delineations shall be performed consistent with the procedures specified in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands, applicable at the time.
 - (vi) The environmental site assessment shall delineate the site-specific geographic extent of the RPA on the specific site or parcel.
 - (vii) The environmental site assessment shall be drawn at the same scale as the Site Plan or subdivision plat and shall be certified as complete and accurate by a professional engineer, certified land surveyor, soil scientist, wetlands scientist, certified landscape architect, or a person or firm competent to make the assessment.²³ This requirement may be waived by the Administrator when the proposed use or development would result in less than 5,000 square feet of disturbed area.
- (F) **Final Plan.** Final plans, when required, for property within CBPAs shall be final plats for land to be subdivided or Site Plans for land not to be subdivided as required by Article III, Permits & Applications, and Article X, Subdivision, of this Ordinance.
 - (1) Final plans for all lands within CBPAs shall include the following additional information:
 - (i) The delineation of the RPA boundary, including the 100-foot buffer area component, if any lot, parcel, or portion of lot or parcel, lies within the RPA;
 - (ii) Plat or plan note stating that no land disturbance is allowed in the buffer area without review and approval by the Administrator;
 - (iii) Plat or plan note requiring pump-out and 100% reserve drainfield sites for onsite sewage treatment systems, when applicable;
 - (iv) Plat or plan note of the permissibility of only water dependent facilities or redevelopment in Resource Protection Areas, including the 100-foot wide buffer area;

²³ Editor's Note: List of persons now includes additional occupations/persons that may prepare an ESA.

- (v) All wetlands permits required by law;
 - (vi) A maintenance agreement as deemed necessary and appropriate by the Administrator to ensure proper maintenance of best management practices to continue their functions; and
 - (vii) WQIA as required by **Section 5-2-8** of this Article.
- (2) Installation and Bonding Requirements:
- (i) Where buffer areas, landscaping, stormwater management facilities, or other specifications of an approved plan are required, no certificate of occupancy shall be issued until the installation of required plant materials or facilities is completed, in accordance with the approved site plan.
 - (ii) When the occupancy of a structure is desired prior to the completion of the required landscaping, stormwater management facilities, or other specifications of an approved plan, a certificate of occupancy may be issued only if the applicant provides to King George County a form of surety satisfactory to the Administrator in an amount equal to the remaining plant materials, related materials, and installation costs of the required landscaping or other specifications and/or maintenance costs for any required stormwater management facilities, during the construction period.
 - (iii) All required landscaping shall be installed and approved by the first planting season following issuance of a certificate of occupancy or the surety may be forfeited to the King George County.
 - (iv) All required stormwater management facilities or other specifications shall be installed and approved within 18 months of project commencement. Should the applicant fail, after proper notice, to initiate, complete or maintain appropriate actions required by the approved plan, the surety may be forfeited to King George County. King George County may collect from the applicant the amount by which the reasonable cost of required actions exceeds the amount of the surety held.
 - (v) After all required actions of the approved site plan have been completed; the applicant must submit a written request for a final inspection. If the requirements of the approved plan have been completed to the satisfaction of the Administrator, such unexpended or unobligated portion of the surety held shall be refunded to the applicant or terminated within 60 days following the receipt of the applicant's request for final inspection. The Administrator may require a certificate of substantial completion from a Professional Engineer or Class III B Surveyor before making a final inspection.

Section 5-2-10. Administrative Responsibility.

Administration of the Plan of Development process shall be in accordance with Article III, Permits and Applications, Division 6, Site Plan, of this Ordinance, as appropriate.

Section 5-2-11. Denial of Plan, Appeal of Conditions, or Modifications.

In the event the final plan or any component of the Plan of Development process is disapproved, and recommended conditions or modifications are unacceptable to the applicant, the applicant may appeal such administrative decision to the Board of Zoning Appeals (BZA). In granting an appeal, the BZA must find such plan to be in accordance with all applicable ordinances and include necessary elements to mitigate any detrimental impact on water quality and upon adjacent property and the surrounding area, or such plan meets the purpose and intent of the performance standards in this Article. If the BZA finds that the applicant's plan does not meet the above stated criteria, they shall deny approval of the plan.

Section 5-2-12. Nonconforming Structures.

(A) In addition to the provisions of Article IX, Nonconformities, of this Ordinance, the following shall also apply to nonconforming structures in a CBPA.

(1) The lawful use of a building or structure which existed on April 1, 1991, or which exists at the time of any amendment to this Article, and which is not in conformity with the provisions of the Overlay District may be continued in accordance with Article IX, Nonconformities, of this Ordinance provided that no change or expansion of use shall be allowed with the exception that:

(i) Where an existing legal nonconforming principal structure encroaches into an RPA feature, the Administrator may allow the legal nonconforming principal structure to be enlarged provided that:

1. There will be no increase in non-point source pollution load; and
2. Any development or land disturbance equal to or greater than an area of 2,500 square feet complies with all erosion and sediment control requirements of this Article.

(ii) An application to enlarge a principal nonconforming structure as described above shall be made in writing to the Administrator and shall include for the purpose of proper enforcement of this Article, the following information:

1. Name and address of applicant and property owner;
2. Legal description of the property and type of proposed use and development;
3. A plat showing the dimensions of the lot or parcel, location of buildings and proposed additions relative to the lot lines, boundary of the RPA, and a proposed mitigation measure to off-set the loss of additional buffer area; and
4. Location and description of any existing private water supply or sewage system.
5. A nonconforming use waiver shall become null and void 12 months from the date issued if no substantial work has commenced. A single 1-year extension of a nonconforming use waiver may be given upon written request by the applicant to the Administrator made within 90 days before the expiration of the approved waiver.

- (iii) An application for the expansion of a non-conforming principal structure may be approved by the Administrator through an administrative review process provided that the following findings are made:
 - 1. The request for the waiver is the minimum necessary to afford relief;
 - 2. Granting the waiver will not confer upon the applicant any specific privileges that are denied by this Article to other property owners in similar situations;
 - 3. The waiver is in harmony with the purpose and intent of this Article and does not result in water quality degradation;
 - 4. The waiver is not based on conditions or circumstances that are self-created or self-imposed;
 - 5. Reasonable and appropriate conditions are imposed, as warranted, that will prevent the waiver from causing a degradation of water quality; and
 - 6. Other findings, as appropriate and required by King George County are met.
 - 7. In no case shall this provision apply to accessory structures.

Section 5-2-13. Exemptions.

- (A) **Exemptions for Public Utilities, Railroads, Public Roads, and Facilities.** Exemptions for local utilities and other service lines owned, permitted or both by a local government, a local service authority or a regional service authority shall be exempt from the Overlay District provided that:
 - (1) Construction, installation, operation, and maintenance of electric, natural gas, fiber-optic and telephone transmission lines, railroads, and public roads and their appurtenant structures in accordance with:
 - (i) Regulations promulgated pursuant to the Erosion and Sediment Control Law (Regulation 9VAC25-840-10 et seq.) and the Stormwater Management Act (Regulation 9VAC25-870-10 et seq.);
 - (ii) An erosion and sediment control plan and a stormwater management plan approved by the Department of Environmental Quality (DEQ), or
 - (iii) Local water quality protection criteria at least as stringent as the above stated requirements are deemed to comply with this Article. The exemption of public roads is further conditioned on the following:
 - 1. The road alignment and design has been optimized consistent with all applicable requirements, to prevent or otherwise minimize the encroachment in the RPA and to minimize the adverse effects on water quality.
- (B) **Exemptions for Local Utilities and Other Service Lines.** Construction installation, and maintenance of water, sewer, natural gas lines, underground telecommunications and cable television lines owned permitted or both by a local government or regional service authority shall be exempt from the criteria in this part provided that:

- (1) To the degree possible, the location of such utilities and facilities should be outside RPAs;
 - (2) No more land shall be disturbed than is necessary to provide for the proposed utility installation;
 - (3) All construction, installation, and maintenance of such utilities and facilities shall be in compliance with all applicable state and federal requirements and permits and designed and conducted in a manner that protects water quality; and
 - (4) Any land disturbance equal to or greater than an area of 2,500 square feet complies with all King George County erosion and sediment control requirements.
- (C) **Exemptions for Silviculture Activities.** Silvicultural activities are exempt from the requirements of this Article provided that silvicultural operations adhere to water quality protection procedures prescribed by the Virginia Department of Forestry in its "Virginia Forestry Best Management Practices for Water Quality." The Virginia Department of Forestry will oversee and document installation of best management practices and will monitor impacts of forestry operations in Chesapeake Bay Preservation Areas.
- (D) **Exemptions in Resource Protection Areas (RPA).** The following land disturbances in RPAs may be exempted from the Overlay District: (i) water wells; (ii) passive recreation facilities such as boardwalks, trails, and pathways; and (iii) historic preservation and archaeological activities, if it is demonstrated to the satisfaction of the Administrator that:
- (1) Any required permits, except those to which this exemption specifically applies, shall have been issued;
 - (2) Sufficient and reasonable proof is submitted that the intended use will not deteriorate water quality;
 - (3) The intended use does not conflict with nearby planned or approved uses; and
 - (4) Any land disturbance equal to or greater than an area of 2,500 square feet shall comply with all King George County erosion and sediment control requirements.

Section 5-2-14. Variance²⁴.

A request for a variance to the requirements of this Overlay District may be made in accordance with Article III, Permits and Applications, of this Ordinance. The application for variance shall identify the impacts of the proposed variance on water quality and on lands within the RPA through the performance of a Water Quality Impact Assessment, as provided in [Section 5-2-8](#) of this Article.

²⁴ Editor's Note: This section has been streamlined so as not to enumerate the BZA processes listed in Article 3 of the draft Ordinance; rather, a reference is made. The existing Ordinance does state that the ZA can make exceptions under certain rules; exemptions are provided for elsewhere. Any variance or exception should go to the BZA.

Division 3. Floodplain Management Overlay²⁵ (FMOD).

Section 5-3-1. Additional Definitions²⁶.

For purposes of this Division, the following terms shall have the meanings respectively ascribed to them, unless the context clearly requires otherwise:

- (A) *100-Year Flood.* The flood having a 1% chance of being equaled or exceeded in any given year. It does not imply that no greater flood is likely to occur, nor that such a flood will not happen more often than once every 100 years.
- (B) *Base Flood.* For the purposes of this Division, the 100-year flood. The flood having a 1% chance of being equaled or exceeded in any given year.
- (C) *Base Flood Elevation.* The Federal Emergency Management Agency designated 100-year water surface elevation. The water surface elevation of the base flood in relation to the datum specified on the community's flood insurance rate map. For the purposes of this Division, the 100-year flood or 1% annual chance flood.
- (D) *Basement.* Any area of the building having its floor surface sub-grade (below ground level) on any side.
- (E) *Breakaway wall.* A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.
- (F) *Coastal High-Hazard Area.* The area subject to high velocity waters, including, but not limited to hurricane wave wash. The area is designated on a FIRM as Zone VE or V (V-Zones).
- (G) *Development.* Any man-made change to improved or unimproved real estate, including but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, or drilling operations or storage of equipment or materials.
- (H) *Elevated Building.* A non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, or columns (post and piers).
- (I) *Encroachment.* For the purposes of this Division, the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures, or development into a floodplain, which may impede or alter the flow capacity of a floodplain.
- (J) *Existing Construction.* Structures for which the start of construction commenced before the effective date of the FIRM. "Existing construction" may also be referred to as "existing structures" and "pre-FIRM."

²⁵ Editor's Note: Floodplain Management Overlay content has been comprehensively overhauled; this overlay has been modified from the existing Ordinance using information from the 2017 floodplain model ordinance provided by Virginia Department of Conservation and Recreation.

²⁶ Editor's Note: The pertinent definitions have been updated to reflect the latest Model Floodplain Ordinance.

- (K) *Existing Structure.* See *Existing Construction*.
- (L) *Federal Emergency Management Agency (FEMA).* An independent agency of the United States government that provides a single point of accountability for all federal emergency preparedness and mitigation and response activities.
- (M) *Fill.* The placing of any material which results in increasing the natural ground surface elevation.
- (N) *Flood Hazard District.* The land located within the base flood area which includes the floodway and the approximated floodplain district.
- (O) *Flood Insurance Rate Map (FIRM).* An official map of a community, on which FEMA has delineated both the areas of special flood hazard and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).
- (P) *Flood Insurance Study (FIS).* An examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudflow and/or flood-related erosion hazards.
- (Q) *Flood or Flooding.*
 - (1) A general and temporary condition of partial or complete inundation of normally dry land areas from:
 - (i) The overflow of inland or tidal waters.
 - (ii) The unusual and rapid accumulation or runoff of surface waters from any source.
 - (iii) Mudflows which are proximately caused by flooding as defined in paragraph a.2. of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.
 - (2) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in subsection (1) of this definition.
- (R) *Floodplain or Flood-prone Area.* Any land susceptible to being inundated by water from any source.
- (S) *Floodproofing.* A combination of design modifications that results in a building or structure that is subject to flooding, including the attendant utility and sanitary facilities, being watertight with walls substantially impermeable to the passage of water.
- (T) *Floodway.* The channel of a river or other watercourse and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation more than one foot at any point within the community.

- (U) *Floodway Fringe*. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the base flood elevation by more than 1.0 foot at any point.
- (V) *Freeboard*. A factor of safety usually expressed in inches or feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization in the watershed. When a freeboard is included in the height of a structure, the flood insurance premiums may be less expensive.
- (W) *Highest Adjacent Grade*. The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
- (X) *Historic Structure*. Any structure that is:
 - (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 - (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
 - (3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or,
 - (4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (i) By an approved state program as defined by the Secretary of the Interior; or,
 - (ii) Directly by the Secretary of the Interior in states without approved programs.
- (Y) *Hydrological and Hydraulic Engineering Analysis*. Analyses performed by a licensed professional engineer, in accordance with standard engineering practices that are accepted by the Virginia Department of Conservation and Recreation (DCR) and FEMA, used to determine the base flood, other frequency floods, flood elevations, floodway information and boundaries, and flood profiles.
- (Z) *Letters of Map Change (LOMC)*. An official FEMA determination, by letter, that amends or revises an effective FIRM or FIS. Letters of map change include:
 - (1) *Letter of Map Amendment (LOMA)*. An amendment based on technical data showing that a property was incorrectly included in a designated special flood hazard area. A LOMA amends the current effective FIRM and establishes that a land as defined by metes and bounds, or structure is not located in a special flood hazard area.
 - (2) *Letter of Map Revision (LOMR)*. A revision based on technical data that may show changes to flood zones, flood elevations, floodplain and floodway delineations, and planimetric features.

A letter of map revision based on fill (LOMR-F) is a determination that a structure or parcel of land has been elevated by fill above the base flood elevation and is, therefore, no longer exposed to flooding associated with the base flood. To qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations.

- (AA) *Conditional Letter of Map Revision (CLOMR)*. A formal review and comment as to whether a proposed flood protection project or other project complies with the minimum NFIP requirements for such projects with respect to delineation of special flood hazard areas. A CLOMR does not revise the effective FIRM or FIS.
- (BB) *Lowest Floor*. The floor of the lowest enclosed area, including basement, but excluding any unfinished or flood-resistant enclosure, usable solely for vehicle parking, building access, or limited storage provided that such enclosure is not built to render the structure in violation of the applicable non-elevation design requirements of Federal Code 44 CFR §60.3.
- (CC) *New Construction*. For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after December 2, 2021²⁷, and includes any subsequent improvements to such structures. For floodplain management or development purposes, new construction means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by King George County and includes any subsequent improvements to such structures.
- (DD) *Post-FIRM Structures*. A structure for which construction or substantial improvement occurred on or after December 2, 2021²⁸.
- (EE) *Pre-FIRM Structures*. A structure for which construction or substantial improvement occurred on or before December 2, 2021²⁹.
- (FF) *Recreational Vehicle*. A vehicle which is:
 - (1) Built on a single chassis;
 - (2) Four hundred square feet or less when measured at the largest horizontal projection;
 - (3) Designed to be self-propelled or towable; and
 - (4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational camping, travel, or seasonal use.
- (GG) *Repetitive Loss Structure*. A building covered by a contract for flood insurance that has incurred flood-related damages on two occasions in a 10-year period, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event; and at the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

²⁷ Editor's Note: This is the date of the most current FEMA FIRMs for King George County.

²⁸ Editor's Note: This is the date of the most current FEMA FIRMs for King George County.

²⁹ Editor's Note: This is the date of the most current FEMA FIRMs for King George County.

- (HH) *Shallow Flooding Area*. A special flood hazard area with base flood depths from one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.
- (II) *Special Flood Hazard Area (SFHA)*. The land in the floodplain subject to a 1% or greater chance of being flooded in any given year as determined in Section 6-6-16 of this Division. Properties within the SFHA are at a high risk of flooding, with at least a 26-percent chance of flooding over the course of a 30-year mortgage.
- (JJ) *Start of Construction*. The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, substantial improvement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms. For a substantial improvement, the actual start of the construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.
- (KK) *Structure*. For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.
- (LL) *Substantial Damage*. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.
- (MM) *Substantial Improvement*. Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage regardless of the actual repair work performed. The term does not, however, include either:
- (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or
 - (2) Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.
- (NN) *Violation*. The failure of a structure or other development to be fully compliant with King George County's floodplain management regulations in this Division. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required

in §60.3(d)(3) of the National Flood Insurance Program regulations, is presumed to be in violation until such time as that documentation is provided.

- (OO) *Watercourse*. A lake, river, creek, stream, wash, channel, or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.
- (PP) *Zone, A*. Those areas for which no detailed flood profiles or elevations are provided, but the 1% annual chance floodplain boundary has been approximated.
- (QQ) *Zone, AE*. A flood hazard zone with two categories defined below as:
 - (1) Category 1 areas on the FIRM accompanying the FIS are delineated for purposes of this Division using the criteria that certain areas within the floodplain must be capable of carrying the water of the base flood without increasing the water surface elevation of that flood more than one foot at any point. The areas included in this district are specifically defined in Table 2 of the King George County FIS and shown on the accompanying FIRM on file with King George County. Category 1 areas shall be those areas for which one-percent annual chance flood elevations have been provided and the floodway has been delineated.
 - (2) Category 2 areas on the FIRM accompanying the FIS shall be those areas for which 1% annual chance flood elevations have been provided and the floodway has not been delineated.
- (RR) *Zone, AH*. Those areas on the FIRM accompanying the FIS with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet.
- (SS) *Zone, AO*. Those areas of shallow flooding identified as AO on the FIRM accompanying the FIS.
- (TT) *Zone, Coastal A*. Flood hazard areas within AE zones that have been delineated as subject to wave heights between 1.5 feet and 3 feet.
- (UU) *Zone, V*. Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. No base flood elevations are shown within these zones.
- (VV) *Zone, VE*. Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
- (WW) *Zone, X*. Those areas of 0.2% annual chance flood or areas of 1% annual chance flood with average depths of less than one foot or with drainage areas less than one square mile.

Section 5-3-2. Authority³⁰.

This Division is adopted pursuant to the authority granted to localities by the Code of Virginia §15.2-2280, as amended, and may be referred to as the King George County Floodplain Management Overlay District, floodplain overlay, or flood hazard overlay.

³⁰ Editor's Note: This section replaces section 9.1 of the existing Ordinance.

Section 5-3-3. Applicability.

These provisions shall apply to all lands within the jurisdiction of King George County and identified as special flood hazard areas (SFHAs) identified by the County or shown on the flood insurance rate map (FIRM) or included in the flood insurance study (FIS) that are provided to the County by the Federal Emergency Management Agency (FEMA).

Section 5-3-4. Compliance and Liability.

- (A) No land shall hereafter be developed, and no structure shall be located, relocated, constructed, reconstructed, enlarged, or structurally altered except in full compliance with the terms and provisions of this Division and Article, and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this ordinance.
- (B) The degree of flood protection sought by the provisions of this Division is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This Division does not imply that areas outside the floodplain area or that land uses permitted within such area will be free from flooding or flood damages.
- (C) This Division shall not create liability on the part of King George County or any officer or employee thereof for any flood damages that result from reliance on this Division, or any administrative decision lawfully made there under.

Section 5-3-5. Abrogation and Greater Restrictions³¹.

- (A) This Division supersedes any locally adopted flooding regulations currently in effect in flood-prone districts. Any regulations, however, shall remain in full force and effect to the extent that its provisions are more restrictive.
- (B) These regulations are not intended to repeal or abrogate any existing ordinances including subdivisions, zoning ordinances, or building codes. In the event of a conflict between these regulations and any other ordinance, the more restrictive shall govern.

Section 5-3-6. Penalty for Violations³².

- (A) Any person who fails to comply with any of the requirements or provisions of this Division, or directions of the Administrator, or any other authorized employee of the King George County, shall be subject to the penalties pursuant to the Code of Virginia, and as outlined in the VA Uniform Statewide Building Code (USBC) for building code violations and Article II, Division 4, Enforcement, of the King George County Zoning Ordinance for violations and associated penalties.
- (B) In addition to the above penalties, all other actions are hereby reserved, including an action in equity for the proper enforcement of this Division. The imposition of a fine or penalty for any

³¹ Editor's Note: Proposed as a new section; contains some text from existing section 9.6.

³² Editor's Note: Proposed as a new section.

violation of, or noncompliance with, this Division shall not excuse the violation or noncompliance or permit it to continue; and all such persons shall be required to correct or remedy such violations within a reasonable time. Any structure constructed, reconstructed, enlarged, altered, or relocated in noncompliance with this Division may be declared by the County to be a public nuisance and abatable as such. Flood insurance may be withheld from structures constructed in violation of this Division.

Section 5-3-7. Designation of the Administrator³³.

- (A) The County shall appoint a designee to administer and implement the regulations of this Division, referred to herein as the Administrator. The Administrator may:
- (1) Administer the duties and responsibilities herein.
 - (2) Delegate duties and responsibilities set forth in these regulations to qualified technical personnel, plan examiners, inspectors, and other employees.
 - (3) Enter into a written agreement or written contract with another community or private sector entity to administer specific provisions of these regulations. Administration of any part of these regulations by another entity shall not relieve the community of its responsibilities pursuant to the participation requirements of the National Flood Insurance Program as set forth in the Code of Federal Regulations at 44 C.F.R. 59.22.

Section 5-3-8. Duties and Responsibilities of the Administrator³⁴.

- (A) The duties and responsibilities of the Administrator shall include but are not limited to:
- (1) Review applications for permits to determine whether proposed activities will be located in a SFHA.
 - (2) Interpret floodplain boundaries and provide available base flood elevation and flood hazard information.
 - (3) Review applications to determine whether proposed activities will be reasonably safe from flooding and require new construction and substantial improvements to meet the requirements of these regulations.
 - (4) Review applications to determine whether all necessary permits have been obtained from the federal, state or local agencies from which prior or concurrent approval is required; in particular, permits from state agencies for any construction, reconstruction, repair, or alteration of a dam, reservoir, or waterway obstruction (including bridges, culverts, structures), any alteration of a watercourse, or any change of the course, current, or cross section of a stream or body of water, including any change to the 100-year frequency floodplain of free flowing non-tidal waters of the state.

³³ Editor's Note: Proposed as a new section.

³⁴ Editor's Note: Proposed as a new section.

- (5) Verify that an applicant proposing to alter a watercourse has notified adjacent local governments, the Department of Conservation and Recreation Division of Dam Safety and Floodplain Management (DCR), the Virginia Department of Environmental Quality (DEQ) and the US Army Corp of Engineers (USACE) and has submitted copies of such notifications to FEMA.
- (6) Advise applicants for new construction or substantial improvement of structures that are located within an area of the Coastal Barrier Resources System established by the Coastal Barrier Resources Act that Federal flood insurance is not available on such structures; areas subject to this limitation are shown on Flood Insurance Rate Maps as Coastal Barrier Resource System Areas (CBRS) or Otherwise Protected Areas (OPA).
- (7) Approve applications and issue permits to develop in SFHA if the provisions of this Division have been met or disapprove applications if the provisions of this Division have not been met.
- (8) Inspect, or cause to be inspected, prospective buildings, structures, and other prospective development for which permits have been issued to determine compliance with this Division or to determine if noncompliance has occurred or violations have been committed.
- (9) Review elevation certificates and require incomplete or deficient certificates to be corrected.
- (10) Submit to FEMA, or require to be submitted to FEMA, at the applicant's expense, data, and information necessary to maintain FIRMs, including hydrologic and hydraulic engineering analyses prepared by or for King George County, within 6 months after such data and information becomes available if the analysis indicates changes in base flood elevations. The Administrator may submit data via a LOMR. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements will be based upon current data.
- (11) Maintain and permanently keep records that are necessary for the administration of these regulations, including:
 - (i) Copies of FISs, FIRMS (including historic studies and maps and current effective studies and maps), and Letters of Map Change (LOMC); and
 - (ii) Documentation supporting issuance and denial of permits, elevation certificates, documentation of the elevation (in relation to the datum on the FIRM) to which structures have been floodproofed, other required design certifications, variances, and records of enforcement actions taken to correct violations of these regulations.
- (12) Enforce the provisions of these regulations, investigate violations, issue notices of violations or stop work orders, and require permit holders to take corrective action.
- (13) Advise the BZA regarding the intent of these regulations and, for each application for a variance, prepare a staff report and recommendation.
- (14) Administer the requirements related to proposed work on existing buildings:

- (i) Make determinations as to whether buildings and structures that are in SFHA that are damaged by any cause have been substantially damaged.
 - (ii) Make reasonable efforts to notify owners of substantially damaged structures of the need to obtain a permit to repair, rehabilitate, or reconstruct the structure. Prohibit the repair of a substantially damaged building without a permit, except for temporary emergency protective measures necessary to secure a property or to stabilize a building or structure to prevent additional damage.
- (15) Undertake, as determined appropriate by the Administrator due to the circumstances, other actions, which may include but are not limited to: issuing press releases, public service announcements, and other public information materials related to permit requests and repair of damaged structures; coordinating with other federal, state, and local agencies to assist with substantial damage determinations; providing owners of damaged structures information related to the proper repair of damaged structures in SFHAs and assisting property owners with documentation necessary to file claims for increased cost of compliance coverage under National Flood Insurance Program (NFIP) flood insurance policies.
- (16) Notify FEMA when the corporate boundaries of the King George County have been modified and:
- (i) Provide a map that clearly delineates the new corporate boundaries or the new area for which the authority to regulate pursuant to these regulations has either been assumed or relinquished through annexation; and
 - (ii) If the FIRM for any annexed area includes special flood hazard areas that have flood zones that have regulatory requirements that are not set forth in these regulations, prepare amendments to these regulations to adopt the FIRM and appropriate requirements, and submit the amendments to the governing body for adoption; such adoption shall take place at the same time as or prior to the date of annexation and a copy of the amended regulations shall be provided to DCR and FEMA.
- (17) Upon the request of FEMA, complete and submit a report concerning participation in the NFIP, which may request information regarding the number of buildings in the SFHA, number of permits issued for development in the SFHA, and number of variances issued for development in the SFHA.
- (18) It is the duty of the Administrator to consider flood, mudslide, and flood-related erosion hazards, to the extent that they are known, in all official actions relating to land management and use throughout the entire jurisdictional area of the County, whether or not those hazards have been specifically delineated geographically (e.g., via mapping or surveying).

Section 5-3-9. Records.³⁵

Records of actions associated with administering this Division shall be kept on file and maintained by the Administrator or their designee.

Section 5-3-10. Use and Interpretation of FIRMs.

- (A) The Administrator shall make interpretations, where needed, as to the exact location of SFHA, floodplain boundaries, and floodway boundaries. The following shall apply to the use and interpretation of FIRMs and data:
- (1) Where field surveyed topography indicates that adjacent ground elevations:
 - (i) Are below the base flood elevation in riverine SFHAs, or are below the 1% storm surge elevation in coastal SFHAs, even in areas not delineated as a SFHA on a FIRM, the area shall be considered as a SFHA and subject to the requirements of these regulations; or
 - (ii) Are above the base flood elevation, the area shall be regulated as a SFHA unless the applicant obtains a LOMC that removes the area from the SFHA.
 - (2) In FEMA-identified SFHAs where base flood elevation and floodway data have not been identified and in areas where FEMA has not identified SFHAs, any other flood hazard data available from a federal, state, or other source shall be reviewed and reasonably used.
 - (3) Base flood elevations and designated floodway boundaries on FIRMs and in FISs shall take precedence over base flood elevations and floodway boundaries by any other sources if such sources show reduced floodway widths and/or lower base flood elevations.
 - (4) Other sources of data shall be reasonably used if such sources show increased base flood elevations and/or larger floodway areas than are shown on FIRMs and in FISs.
 - (5) If a preliminary FIRM and/or a preliminary FIS has been provided by FEMA:
 - (i) Upon the issuance of a Letter of Final Determination (LOFD) by FEMA, the preliminary flood hazard data shall be used and shall replace the flood hazard data previously provided from FEMA for the purposes of administering these regulations.
 - (ii) Prior to the issuance of a LOFD by FEMA, the use of preliminary flood hazard data shall be deemed the best available data pursuant to **Section 5-3-15 (A)(3)(iii)** as defined by this Division and used where no base flood elevations and/or floodway areas are provided on the effective FIRM.
 - (iii) Prior to issuance of a LOFD by FEMA, the use of preliminary flood hazard data is permitted where the preliminary base flood elevations or floodway areas exceed the base flood elevations and/or designated floodway widths in existing flood hazard data provided by FEMA. Such preliminary data may be subject to change and/or appeal to FEMA.

³⁵ Editor's Note: This section is taken out from existing section 9.4 (C).

Section 5-3-11. Jurisdictional Boundary Changes³⁶.

- (A) The County floodplain overlay in effect on the date of annexation shall remain in effect and shall be enforced by the municipality for all annexed areas until the municipality adopts and enforces an ordinance which meets the requirements for participation in the NFIP. Municipalities with existing floodplain ordinances shall pass a resolution acknowledging and accepting responsibility for enforcing floodplain ordinance standards prior to annexation of any area containing identified flood hazards. If the FIRM for any annexed area includes SFHAs with flood zones that have regulatory requirements that are not set forth in these regulations, the governing body shall prepare amendments to these regulations to adopt the FIRM and appropriate requirements, and submit the amendments to the governing body for adoption; such adoption shall take place at the same time as or prior to the date of annexation and a copy of the amended regulations shall be provided to DCR Division of Dam Safety and Floodplain Management and FEMA.
- (B) In accordance with the Code of Federal Regulations, Title 44 Subpart (B) Section 59.22(a)(9)(v), all NFIP participating communities must notify the Federal Insurance Administration and optionally the state coordinating office in writing whenever the boundaries of the community have been modified by annexation or the community has otherwise assumed or no longer has authority to adopt and enforce floodplain management regulations for a particular area.
- (C) To ensure that all FIRMs accurately represent the community's boundaries, a copy of a map of the community suitable for reproduction, clearly delineating the new corporate limits or new area for which the community has assumed, or relinquished floodplain management regulatory authority must be included with the notification.

Section 5-3-12. District Boundary Changes³⁷.

The delineation of the Floodplain Management District may be revised by the King George County Board of Supervisors where natural or man-made changes have occurred and/or where more detailed studies have been conducted or undertaken by the U.S. Army Corps of Engineers or other qualified agency or an individual documents the need for such change. However, prior to any such change, approval must be obtained from FEMA. An approved Letter of Map Revision (LOMR) serves as record of this change.

Section 5-3-13. Interpretation of District Boundaries³⁸.

Initial interpretations of the boundaries of the Floodplain Management Overlay shall be made by the Administrator or designee. Should a dispute arise concerning the boundaries of any of the districts, the BZA shall make the necessary determination in accordance with Article III, Permits and Applications, of this Ordinance. The person questioning or contesting the location of the district boundary shall be given a reasonable opportunity to present their case to the BZA and to submit his own technical evidence if they so desire.

³⁶ Editor's Note: Proposed as a new section.

³⁷ Editor's Note: Taken from existing section 9.8.

³⁸ Editor's Note: Taken from existing section 9.9.

Section 5-3-14. Letters of Map Revision³⁹.

- (A) When development in the floodplain will cause or causes a change in the base flood elevation, the applicant, including state agencies, must notify FEMA by applying for a Conditional Letter of Map Revision (CLOMR) or a LOMR. Examples include:
- (1) Any development that causes a rise in the base flood elevations within the floodway.
 - (2) Any development occurring in zone AE without a designated floodway, which will cause a rise of more than one foot in the base flood elevation.
 - (3) Alteration or relocation of a stream (including but not limited to installing culverts and bridges) 44 CFR 65.3 and 65.6(a)(12).

Section 5-3-15. Establishment of Flood Hazard Zones⁴⁰.

- (A) **Basis of flood hazard zones.** The various flood hazard zones shall include special flood hazard areas (SFHA). The basis for the delineation of these zones shall be the FIS and the FIRM for King George County, Virginia, and incorporated areas prepared by FEMA, Federal Insurance Administration, dated December 2, 2021, and any subsequent revisions or amendments thereto.
- (1) King George County may identify and regulate local flood hazard or ponding areas that are not delineated on the FIRM. These areas may be delineated on a “Local Flood Hazard Map” using best available topographic data and locally derived information such as flood of record, historic high-water marks, or approximated study methodologies.
 - (2) The boundaries of the SFHA and flood hazard zones are established as shown on the FIRM which is declared to be a part of this Division, and which shall be kept on file at the King George County Community Development offices.
 - (3) The flood hazard zones described below shall constitute the Floodplain Management Overlay District. It shall be an overlay to the existing underlying zoning districts as shown on the official zoning ordinance map, and as such, the provisions for the Floodplain Management Overlay District shall serve as a supplement to the underlying district provisions.
 - (i) **AE Zone.** Those areas with at least a 1% annual chance of being flooded. Also includes the “Coastal A Zone,” which are areas that are subject to wave heights between 1.5 feet and 3 feet. AE zones have two categories, defined below:
 1. Category 1 areas on the FIRM accompanying the FIS are delineated for purposes of this Division using the criteria that certain areas within the floodplain must be capable of carrying the water of the base flood without increasing the water surface elevation of that flood more than one foot at any point. These areas included in this district are specifically defined in Table 2 of the King George County FIS and shown on the accompanying FIRM on file with the King George County Community Development

³⁹ Editor’s Note: Proposed as a new section.

⁴⁰ Editor’s Note: Partially proposed as a new section; item (B) is carried over from existing Ordinance section 9.12.

- offices. Category 1 areas shall be those areas for which one-percent annual chance flood elevations have been provided and the floodway has been delineated.
2. Category 2 areas on the FIRM accompanying the FIS shall be those areas for which one-percent annual chance flood elevations have been provided and the floodway has not been delineated.
- (ii) **AH Zone.** Those areas on the FIRM accompanying the FIS with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones; for the purposes of elevation and construction standards of **Section 5-3-18**, the AH Zone shall be considered a Category 2 area.
 - (iii) **A Zone.** Those areas known as the Approximated Floodplain Areas, for which no detailed flood profiles or elevations are provided, but the one percent annual chance floodplain boundary has been approximated. For these areas, the base flood elevations and floodway information from Federal, State, and other acceptable sources shall be used, when available [44 CFR 60.3(b)]. Where the specific one percent annual chance flood elevation cannot be determined for this area using other sources of data, such as the U. S. Army Corps of Engineers Floodplain Information Reports, U. S. Geological Survey Flood-Prone Quadrangles, etc., then the applicant for the proposed use, development and/or activity shall determine this base flood elevation. The elevation shall be determined by using the elevation of a point on the boundary of the identified floodplain area which is nearest the construction site. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the Administrator.
 1. In A zones, the base flood elevations and floodway information from federal, state, and other acceptable sources shall be used, when available. When not available, the base flood elevation data shall be obtained from other sources or developed using detailed methodologies comparable to those contained in a FIS for subdivision proposals and other proposed development proposals (including manufactured home parks) that exceed 50 lots or five acres, whichever is the lesser.⁴¹
 - (iv) **AO Zone.** Those areas of shallow flooding identified as AO on the FIRM.
 - (v) **VE or V Zones.** Those areas that are known as Coastal High Hazard Areas, extending from offshore to the inland limit of a primary frontal dune along an open coast or other areas subject to high velocity waves.
 - (vi) **X Zone.** Other flood districts shall be those areas identified as Zone X on the maps accompanying the flood insurance study. This zone includes areas of 0.2% annual chance flood or areas of 1% annual chance flood with average depths of less than one foot or with drainage areas less than one square mile.

⁴¹ Editor's Note: The state model ordinance recommends requiring this at 5 lots instead of 50 because it would capture more development. The existing ordinance section 9.11 uses 50 lots.

- (4) Where the specific base flood elevation cannot be determined for this area using other sources of data, such as the U.S. Army Corps of Engineers Flood Plain Information Reports, U.S. Geological Survey Flood-prone Quadrangles, etc., then the applicant for the proposed use, development and/or activity shall determine this elevation in accordance with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by King George County.

Section 5-3-16. Permits and Applications.

(A) Permit requirement.

- (1) All uses, activities and, development occurring within the Floodplain Management Overlay shall be undertaken only upon the issuance of a permit. Such development shall be undertaken only in strict compliance with the provisions of this Division and with all other applicable codes and ordinances, as amended, such as the VA USBC and the King George County Zoning and Subdivision Ordinance. Prior to the issuance of any such permit, the Administrator shall require all applications to include compliance with all applicable state and federal laws and shall review all sites to assure they are reasonably safe from flooding. Under no circumstances shall any use, activity and/or development adversely affect the capacity of the channels or floodways or any watercourse, drainage ditch or any other drainage facility or system.
- (2) Prior to any proposed alteration or relocation of any channels or of any watercourse, stream, etc., within this jurisdiction, a permit shall be obtained from the U.S. Army Corps of Engineers, the Virginia Marine Resources Commission, and the Virginia State Water Control Board. Further notification of the proposal shall be given to all adjacent jurisdictions, the Division of Dam Safety and Flood Plain Management at the Department of Conservation and Recreation and the Federal Emergency Management Agency.

(B) Site Plans and Permit Applications.

- (1) All applications for development in the floodplain areas and all building permits issued for the floodplain shall incorporate the following information:
 - (i) The elevation of the Base Flood at the site;
 - (ii) For structures to be elevated, the elevation of the lowest floor (in relation to mean sea level), including basement or in V zones, the lowest horizontal structural member.
 - (iii) For structures to be floodproofed, non-residential only, the elevation to which the structure will be floodproofed.
 - (iv) Topographic information showing existing and proposed ground elevations.

(C) Standards for Subdivision Proposals. All subdivision proposals shall:

- (1) Be consistent with the need to minimize flood damage;
- (2) Have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
- (3) Have adequate drainage provided to reduce exposure to flood hazards, and
- (4) Base flood elevation data shall be obtained from other sources or developed using detailed methodologies, hydraulic and hydrologic analysis, comparable to those contained in a Flood Insurance Study for subdivision proposals and other proposed development proposals (including manufactured home parks and subdivisions) that exceed 50⁴² lots or 5 acres, whichever is the lesser.

Section 5-3-17. Elevation and Construction Standards.⁴³

In all identified flood hazard areas where base flood elevations have been provided in the FIS or generated by a certified professional in accordance with Section 5-3-15 (B)(3), above, the following provisions shall apply:

(A) **General Standards.** The following shall apply to all permits:

- (1) New construction and substantial improvements shall be built according to this Ordinance and the VA USBC, and anchored to prevent flotation, collapse, or lateral movement of the structure.
- (2) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state anchoring requirements for resisting wind forces.
- (3) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (4) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
- (5) The flood carrying capacity within an altered or relocated portion of any watercourse shall be maintained.
- (6) New construction and replacement of any utilities and facilities shall follow the provisions of Section 5-3-18 of this Article.

(B) **AE and AH Zones.**

- (1) Within any AE Category 1 area, no encroachments, including fill, new construction, substantial improvements, or other development shall be permitted unless it has been demonstrated

⁴² The recommended standard here is 5 lots instead of 50. Fifty lots is the breakpoint suggested in the federal regulations, but the 5/5 rule is less confusing and captures more commercial development.

⁴³ Editor's Note: Proposed as a new section; contains content from exiting Ordinance 9.11.

through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that the proposed encroachment will not result in any increase in flood levels within the community during the occurrence of the base flood discharge. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the Administrator.

- (i) Development activities which increase the water surface elevation of the base flood may be allowed, provided that the applicant first applies – with King George County’s endorsement – for a Conditional Letter of Map Revision (CLOMR) and receives the approval of FEMA.
 - (ii) If subsection (i), above, is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of **Section 5-3-18**.
- (2) Within any AE Category 2 or AH area, until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the areas of special flood hazard, designated as Zones AE or AH on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the County.
- (3) Development activities in Zones AE or AH on King George County’s FIRM which increase the water surface elevation of the base flood by more than one foot may be allowed, provided that the applicant first applies—with the County’s endorsement—for a CLOMR and receives the approval of FEMA.
- (C) **A Zone.**
- (1) For development proposed in the A Zone (approximate floodplain) the applicant must use technical methods that correctly reflect currently accepted practices, such as point on boundary, high water marks, or detailed methodologies hydrologic and hydraulic analyses. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the Floodplain Administrator.
 - (2) The Floodplain Administrator reserves the right to require a hydrologic and hydraulic analysis for any development. When such base flood elevation data is utilized, the lowest floor shall be elevated to or above the base flood level plus twelve (12) inches⁴⁴.
 - (3) During the permitting process, the Floodplain Administrator shall obtain:

⁴⁴ Editor’s Note: A freeboard of 12 inches is added to the standard as an additional margin of safety in case the models have an error or are based on incomplete data, this change will also help reduce flood insurance rates. The state model ordinance recommends 18 inches of freeboard however, many localities view this as excessive and use 12 inches.

- (i) The elevation of the lowest floor (in relation to mean sea level), including the basement, of all new and substantially improved structures; and,
 - (ii) If the structure has been floodproofed in accordance with the requirements of this article, the elevation (in relation to mean sea level) to which the structure has been floodproofed.
- (4) Base flood elevation data shall be obtained from other sources or developed using detailed methodologies comparable to those contained in a FIS for subdivision proposals and other proposed development proposals (including manufactured home parks and subdivisions) that exceed fifty lots or five acres, whichever is the lesser.
- (D) **AO Zone.**
- (1) All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated to or above the flood depth specified on the FIRM, above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM. If no flood depth number is specified, the lowest floor, including basement, shall be elevated no less than two feet above the highest adjacent grade.
 - (2) All new construction and substantial improvements of non-residential structures shall:
 - (i) Have the lowest floor, including basement, elevated to or above the flood depth specified on the FIRM, above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM. If no flood depth number is specified, the lowest floor, including basement, shall be elevated at least two feet above the highest adjacent grade; or
 - (ii) Together with attendant utility and sanitary facilities be completely floodproofed to the specified flood level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
 - (3) Adequate drainage paths around structures on slopes shall be provided to guide floodwaters around and away from proposed structures.
- (E) **V and VE Zones.**
- (1) Within V and VE Zones,⁴⁵ which are areas of coastal high hazard that have special flood hazards associated with wave wash, the following additional provisions shall apply:
 - (i) Within V-Zones on the Flood Insurance Rate Maps, the Administrator shall obtain the elevation (in relation to mean sea level) of the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement. The Administrator shall maintain record of all such information.

⁴⁵ Editor's Note: Included from the existing Ordinance, Section 9.12.

- (ii) All new construction shall be located landward of the reach of mean high tide.
- (iii) There shall be no fill used as structural support. When non-structural fill is proposed, appropriate engineering analyses shall be conducted to evaluate the impacts of the fill prior to issuance of a permit.
- (iv) There shall be no alteration of sand dunes which would increase potential flood damage.
- (v) All new construction and substantial improvements, including manufactured homes, shall be elevated on pilings and columns so that:
 - 1. The bottom of the lowest horizontal structural member of the lowest floor (excluding pilings and columns) elevated to or above the base flood level plus 12 inches.⁴⁶
 - 2. The pile or column foundation and structure attached thereto must be anchored to resist floatation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a 1% chance of being equaled or exceeded in any given year (one-percent annual chance).
- (vi) A registered professional engineer or architect shall develop or review the structural design and methods of construction and shall certify that design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of this Section.
- (vii) Provide that all new construction and substantial improvements, within Zones VE and V on the community's FIRM, have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot, either by design or when so required by local or State codes, may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:
 - 1. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
 - 2. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components, structural and non-structural. Water loading values used shall be those associated with the base

⁴⁶ Editor's Note: A freeboard of 12 inches is added to the standard as an additional margin of safety in case the models have an error or are based on incomplete data, this change will also help reduce flood insurance rates. The state model ordinance recommends 18 inches of freeboard however, many localities view this as excessive and use 12 inches.

flood. Wind loading values used shall be those required by applicable State or local building standards.

- (viii) Enclosed space below the lowest floor shall be usable solely for parking of vehicles, building access or storage and shall not be partitioned into multiple rooms, temperature-controlled, or used for human habitation.

(F) **Residential Construction**⁴⁷.

- (1) New construction or substantial improvement of any residential structure (including manufactured homes) in Zones AE, AH, and A, shall have the lowest floor, including basement, elevated to or above the base flood level plus 12 inches⁴⁸.

(G) **Nonresidential Construction.**

- (1) New construction or substantial improvement of any commercial, industrial, or nonresidential building shall have the lowest floor, including basement, elevated to or above the base flood level plus 12 inches.⁴⁹
- (2) Non-residential buildings located in all AE and AH zones may be floodproofed in lieu of being elevated provided that all areas of the building components below the elevation corresponding to the base flood elevation plus one foot are watertight with walls substantially impermeable to the passage of water and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification, including the specific elevation (in relation to mean sea level) to which such structures are floodproofed, shall be maintained by the Administrator.

(H) **Space Below the Lowest Floor.**

- (1) In zones A, AE, AH, and AO, fully enclosed areas of new construction or substantially improved structures, which are below the regulatory flood protection elevation shall:
 - (i) Not be designed or used for human habitation, but shall be used solely for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator);

⁴⁷ Editor's Note: Section 9.11 of the existing Ordinance provides regulations for manufactured homes. This has been removed, as all constructions and improvements to any type of structure should be treated the same.

⁴⁸ Editor's Note: A freeboard of 12 inches has been added as a best practice that helps lower flood insurance rates. According to DEQ's model ordinance, the flood maps anticipate one foot of rise in BFE due to fill in the floodplain, so while building to BFE is all that is required; it will result in flooding if all assumptions made in mapping are correct. Flood insurance rounds up for freeboard so an 18-inch requirement offers the best "bang for the buck" in reducing flood insurance rates and allows for an additional margin of safety in case the models have an error or are based on incomplete data.

⁴⁹ Editor's Note: A freeboard of 12 inches has been added as a best practice that helps lower flood insurance rates. The model ordinance recommends raising this to 18 inches.

- (ii) Be constructed entirely of flood resistant materials below the regulatory flood protection elevation; and
- (iii) Include measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet the following minimum design criteria:
 1. Provide a minimum of two openings on different sides of each enclosed area subject to flooding.
 2. The total net area of all openings must be at least 1 square inch for each square foot of enclosed area subject to flooding.
 3. If a building has more than one enclosed area, each area must have openings to allow floodwaters to automatically enter and exit.
 4. The bottom of all required openings shall be no higher than 1 foot above the adjacent grade.
 5. Openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions.
 6. Foundation enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires openings as outlined above.
- (I) **Accessory Structures.**⁵⁰
 - (1) Accessory structures in the SFHA shall comply with the elevation requirements and other requirements of Section 5-3-17 or, if not elevated or dry floodproofed, shall:
 - (i) Not be used for human habitation;
 - (ii) Be limited to no more than 600 square feet⁵¹ in total floor area;
 - (iii) Be useable only for parking of vehicles or limited storage;
 - (iv) Be constructed with flood damage-resistant materials below the base flood elevation;
 - (v) Be constructed and placed to offer the minimum resistance to the flow of floodwater;
 - (vi) Be anchored to prevent floatation;
 - (vii) Have electrical service and mechanical equipment elevated to or above the base flood elevation; and

⁵⁰ If desired by the locality, a deed restriction prohibiting conversion of the accessory structure (non-conversion agreement). This is recommended, but not required by DEQ.

⁵¹ Editor's Note: This size meets FEMA Region III size restriction. This size could be further restricted by decreasing the number but cannot be increased.

(viii) Shall be provided with flood openings which shall meet the following criteria:

1. There shall be a minimum of two flood openings on different sides of each enclosed area; if a building has more than one enclosure below the lowest floor, each such enclosure shall have flood openings on exterior walls.
2. The total net area of all flood openings shall be at least 1 square inch for each square foot of enclosed area (non-engineered flood openings), or the flood openings shall be engineered flood openings that are designed and certified by a licensed professional engineer to automatically allow entry and exit of floodwaters; the certification requirement may be satisfied by an individual certification, or an Evaluation Report issued by the ICC Evaluation Service, Inc.
3. The bottom of each flood opening shall be 1 foot or less above the higher of the interior floor or grade, or the exterior grade, immediately below the opening.
4. Any louvers, screens, or other covers for the flood openings shall allow the automatic flow of floodwaters into and out of the enclosed area.

(J) **Recreation Vehicles.**

(1) All recreational vehicles placed on sites must either:

- (i) Be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions); or
- (ii) Meet all the requirements of Section 5-3-17 (A) and (G).

Section 5-3-18. Design Criteria for Utilities and Facilities⁵².

- (A) **Sanitary Sewer Facilities.** All new or replacement sanitary sewer facilities and private package sewage treatment plants, including all pumping stations and collector systems, shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into the flood waters. In addition, they should be located and constructed to minimize or eliminate flood damage and impairment.
- (B) **Water Facilities.** All new or replacement water facilities shall be designed to minimize or eliminate infiltration of flood waters into the system and be located and constructed to minimize or eliminate flood damages.
- (C) **Drainage Facilities.** All storm drainage facilities shall be designed to convey the flow of surface waters without damage to persons or property. The systems shall ensure drainage away from buildings and on-site waste disposal systems. The Board of Supervisors may require a primarily underground system to accommodate frequent floods and a secondary surface system to accommodate larger, less frequent floods. Drainage plans shall be consistent with local and

⁵² Editor's Note: This section is not in the model ordinance; it has been retained from the existing Ordinance with duplicate/conflicting items removed.

regional drainage plans. The facilities shall be designed to prevent the discharge of excess runoff onto adjacent properties.

- (D) **Utilities.** All utilities, such as gas lines, electrical and telephone systems being placed in flood-prone areas should be located, elevated where possible, and constructed to minimize the chance of impairment during a flooding occurrence.
- (E) **Streets and Sidewalks.** Streets and sidewalks should be designed to minimize their potential for increasing and aggravating the levels of flood flow. Drainage openings shall be required to sufficiently discharge flood flows without unduly increasing flood heights.

Section 5-3-19. Existing Structures in Floodplain Areas⁵³.

- (A) Any structure or use of a structure or premises must be brought into conformity with these provisions when it is changed, repaired, or improved unless one of the following exceptions is established before the change is made:
 - (1) The Administrator has determined that:
 - (i) Change is not a substantial repair or substantial improvement;
 - (ii) No new square footage is being built in the floodplain that is not compliant;
 - (iii) No new square footage is being built in the floodway;
 - (iv) The change complies with this ordinance and the VA USBC; and
 - (v) The change, when added to all the changes made during a rolling 5-year period does not constitute 50% of the structure's value.⁵⁴
 - (2) The changes are required to comply with a citation for a health or safety violation.
 - (3) The structure is a historic structure and the change required would impair the historic nature of the structure.

Section 5-3-20. Variances.

- (A) It is intended for variances to be granted only for lot sizes less than one-half acre, however, deviations can occur when greater technical justification is provided.
- (B) Variances shall be issued only upon:
 - (1) A showing of good and sufficient cause;
 - (2) Determination by the BZA that failure to grant the variances would result in exceptional hardship to the applicant;
 - (3) Determination by the BZA that the variance will be the minimum required to provide relief; and

⁵³ Editor's Note: This section has been revised to match the latest model ordinance more closely.

⁵⁴ Editor's Note: This is a higher standard recommended by DCR to prevent circumvention of the ordinance intent.

- (4) After the BZA has determined that the granting of such variance will not result in any of the following:
 - (i) Unacceptable or prohibited increases in flood height;
 - (ii) Additional threats to public safety, or otherwise strictly against public policy;
 - (iii) Extraordinary public expense; and
 - (iv) The authorization of said variance shall not:
 - 1. Create nuisances;
 - 2. Cause fraud or victimization of the public; or
 - 3. Conflict with local laws or ordinances.
- (C) A request for a variance to the requirements of this Floodplain Management Overlay District may be made in accordance with Article III, Permits and Applications, of this Ordinance. In addition, the BZA will consider the following additional factors:
 - (1) The danger to life and property due to increased flood heights or velocities caused by encroachments;
 - (2) No variance shall be granted for any proposed use, development, or activity within any Floodway District that will cause any increase in the one percent (1%) chance flood elevation;
 - (3) The danger that materials may be swept on to other lands or downstream to the injury of others;
 - (4) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions;
 - (5) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners;
 - (6) The importance of the services provided by the proposed facility to the community;
 - (7) The requirements of the facility for a waterfront location;
 - (8) The availability of alternative locations not subject to flooding for the proposed use;
 - (9) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future;
 - (10) The relationship of the proposed use to the comprehensive plan and floodplain management program for the area;
 - (11) The safety of access by ordinary and emergency vehicles to the property in time of flood;
 - (12) The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site;

- (13) The repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure;
- (14) Variances will not be issued for any accessory structure within the SFHA; and
- (15) Such other factors which are relevant to the purposes of this ordinance.
- (D) No variance shall be granted for any proposed use, development, or activity within any floodway area that will cause any increase in the 100-year flood elevation.
- (E) When considering variances, the BZA shall ensure that the granting of same will comply with the requirements of the VA USBC.
- (F) The BZA may refer any application and accompanying documentation pertaining to any request for a variance to any engineer or other qualified person or agency for technical assistance in evaluating the proposed project in relation to flood heights and velocities, and the adequacy of the plans for flood protection and other related matters.
- (G) Variances shall be issued only after the BZA has made its determination in accordance with Section 5-3-21 (A), above, and as set forth in the provisions for appeal in Article III, Permits and Applications, of this Ordinance.
- (H) The BZA shall notify the applicant for a variance, in writing, that the issuance of a variance to construct a structure below the base flood elevation will:
 - (1) Increase the risks of life and property; and
 - (2) Will result in increased premium rates for flood insurance.
- (I) Should the decision of the BZA uphold the prior decision of the Administrator, an additional appeal is available, subject to the requirement of the Code of Virginia.
- (J) A record shall be maintained of the above notification as well as all variance actions, including justification for the issuance of the variances. Any variances which are issued shall be noted in the annual or biennial report submitted to the Federal Emergency Management Agency (FEMA).

Division 4. Highway Corridor Overlay (HCOD)⁵⁵.

Section 5-4-1. Applicability.

- (A) The Highway Corridor Overlay (HCOD) shall apply to all lands identified as by the Board of Supervisors and as shown on the Zoning Map.

⁵⁵ Editor's Note: The existing Ordinance provides regulations for signs, lighting, landscaping, parking, etc. in the HCOD; Berkley Group proposes to relocate all design standards to Article 8, Community Design Standards, of the draft Ordinance. With this shift, all design standards will be in one place. A developer/reader can locate the overall design standards for their base district, as well as easily see additional standards that may apply to their overlay.

- (B) The HCOD boundaries are hereby established along the HCOD roadways identified herein and the development standards within this Article shall apply to all property with frontage along the HCOD roadways.
- (C) Within the HCOD, where the term “HCOD roadway” is used, it shall mean the following routes:
 - (1) U.S. Route 301; and
 - (2) Route 3.

Section 5-4-2. Permitted Uses.

- (A) Unless otherwise specified, uses which are permitted by-right and by Special Use Permit in the underlying districts shall be similarly permitted in the HCOD district; see Article XI, Use Matrix.

Section 5-4-3. Exceptions.

- (A) The development standards set out herein shall apply to all property within the HCOD, except for the following:
 - (1) Property that has been developed prior to the effective date of the adoption of the HCOD, June 28, 2001, shall not be required to conform to the development standards of the HCOD, unless there is an expansion of floor area more than a cumulative total of 50% or 10,000 sq. ft., whichever is less. However, landscaping standards shall only apply to that portion of the site where the new development abuts an HCOD roadway.
 - (i) Property shall be considered developed only if:
 - 1. A Site Plan in accordance with Article 3, Permits and Applications, of this Ordinance has been submitted to the County for review or a subdivision plat in accordance with Article 10, Subdivision, of this Ordinance has been submitted to the County for review;
 - 2. A Building Permit has been issued by King George County; or
 - 3. A Final Occupancy Permit has been issued by King George County.
 - (2) Residential uses and farm related uses located on individual parcels that are not part of a subdivision, commercial, or industrial development, permitted after the effective date of this Ordinance, shall only be required to comply with the minimum setback requirements of **Section 5-4-4**, Development and Design Standards, and **Section 5-4-5**, Access and Internal Circulation, of the HCOD.
- (B) Exceptions to the Development, Access, and Sign Standards specified for the HCOD may be granted by the Planning Commission⁵⁶, with final approval from the Board of Supervisors, in accordance with the procedures set out in Article 3, Permits and Applications, of this Ordinance. In addition to the requirements for a Special Exception Approval, applications shall be made in writing to the Administrator and shall be accompanied by a Site Plan of the proposed

⁵⁶ Proposed change that allows exceptions to be made by the Planning Commission, rather than undergoing a variance process with the BZA (as currently provided in the existing Ordinance).

development. An exception may be granted if the Planning Commission makes the following findings:

- (1) That the exception is reasonably necessary due to the physical constraints of the site, such as size, shape, topography, soils, or arrangement of existing improvements, that prevent construction in accordance with applicable standards without compromising the intent of this Ordinance, and that the exception is the minimum departure from applicable standards necessary to provide relief;
- (2) That an exception would not unreasonably lower the level of service of the affected roads;
- (3) That the design and location of proposed on-site improvements are compatible with existing developed sites contiguous with and near to the site of the proposed development;
- (4) That the granting of the exception will not substantially affect adversely the use of adjacent and neighboring property;
- (5) That the granting of the exception will avoid the unnecessary replacement of existing landscaping and other improvements on site, if applicable, and will not result in unsafe circulation patterns on the site; and
- (6) That the granting of the exception will not endanger the public safety, or in any other respect impair the health, safety, comfort, and welfare of the inhabitants of the County.

Section 5-4-4. Development and Design Standards^{57,58}.

- (A) Where there is any conflict between the provisions or requirements of any of the HCOD and those of any underlying district, the more restrictive provisions shall apply. In addition to the development standards specified in the Zoning Ordinance for underlying primary districts, the following additional standards shall apply in all HCOD overlays:
- (1) **Setbacks.** The front setbacks for all structures within an HCOD shall be 50 ft.
 - (2) **Fencing.** All fences erected in HCOD districts shall comply with the standards of Article VIII, Community Design Standards, of this Ordinance.
 - (3) **Lighting.** All lighting installed in HCOD districts shall comply with the standards of Article VIII, Community Design Standards, of this Ordinance.
 - (4) **Signs.** All signs erected in HCOD districts shall comply with the standards of Article VIII, Community Design Standards, of this Ordinance.

⁵⁷ Editor's Note: This section proposes to provide references to Article 8 for additional standards for parking, fencing, etc. Rather than listing here, all standards will be provided in Article 8 and there will be additional language that states that in addition to meeting the landscape standards for the underlying districts, an applicant must also meet the additional standards that are listed for the various overlay districts, where appropriate.

⁵⁸ Editor's Note: The existing Ordinance provides standards for outdoor storage and utilities in an HCOD; these will be provided in Article 7, Use Standards, and Article 8, Community Design Standards.

- (5) **Parking and Loading areas.** All parking and loading areas in HCOD districts shall comply with the standards of Article VIII, Community Design Standards, of this Ordinance.
- (6) **Landscaping.** All landscaping in HCOD districts shall comply with the standards of Article VIII, Community Design Standards, of this Ordinance.

Section 5-4-5. Access and Internal Circulation Standards.

- (A) **Purpose.** The purpose and intent of this subsection is to:
 - (1) Maximize the functional capacity and maintain the level of service of HCOD roadways;
 - (2) Minimize the number of access points and other public rights-of-way;
 - (3) Promote the sharing of access and the ability to travel between sites;
 - (4) Provide pedestrian circulation networks among residential, commercial, and recreational areas; and
 - (5) Enhance safety and convenience for uses of the HCOD.
- (B) **Access to HCOD Roadways.**
 - (1) Any parcel or assembly of parcels having frontage along a HCOD roadway shall be permitted only one direct access to that HCOD roadway, unless an access plan is submitted to, and approved by the Planning Commission for more than one access point. However, additional access points, associated with subdivision, commercial, or industrial development, shall also provide access to adjacent parcel for existing or future development.
 - (2) Existing parcels of land shall not be denied access to a public highway if no reasonable shared or cooperative access is possible, at the time of development.
 - (3) The Planning Commission may approve additional direct access points to HCOD roadways if it is demonstrated that the proposed design accomplishes the purpose of the HCOD. Access design must conform or exceed the minimum guidelines contained in the Site Handbook, Fredericksburg District Office of the Virginia Department of Transportation (VDOT).
 - (4) For those parcels not permitted direct access to an HCOD roadway, indirect access may be provided by the following methods:
 - (i) Access to the site may be provided by an existing or planned public street;
 - (ii) Access to the site may be provided via the internal circulation of a subdivision, shopping center, an office complex, or similar group of buildings having access in accordance with an approved access plan. No additional direct access shall be provided to the site from a public street intended to carry through traffic over and above those entrances, which may exist to provide access to the shopping center, office complex or similar group of buildings. Access through the side or rear setback is encouraged, provided that the access meets VDOT's standards for commercial entrances, is safe, internal, and generally perpendicular to the setback.

- (iii) Access may be provided by a service drive and/or shared access that provides controlled access to the site.
 - (iv) Developers of all parcels or lots located at existing or proposed crossovers and/or intersections shall submit an access plan to the County for approval that addresses access for the surrounding area. The access plan shall demonstrate the ability to provide adequate access to surrounding properties via cross-easement or similar agreement(s). An access plan shall be submitted and approved prior to Preliminary Plat or Site Plan approval. Such access plan shall be drawn to scale, including dimensions and distances, and clearly delineate the traffic circulation system and the pedestrian circulation system as coordinated with adjacent properties, including the location and width of all streets, driveways, access aisles, entrance to parking areas, walkways, and bicycle paths.
 - (v) Right-in right-out curb cuts between median crossovers along an HCOD roadway may be approved if a traffic analysis can appropriately show that there will be no reduction in the level of service for the affected roadway, as determined by the of VDOT.
- (C) **Internal Circulation.** Sites shall be designed to achieve direct and convenient pedestrian and vehicular circulation between adjacent properties of existing and future development, unless otherwise approved by the County.
- (D) **Traffic Impact Analysis.** A traffic impact analysis shall be submitted to the County with a request for Site Plan approval, per Article 3, Permits and Applications, of this Ordinance. The traffic impact analysis shall be prepared in accordance with the applicable VDOT standards for such an analysis.

Division 5. Military Overlay⁵⁹.

Section 5-5-1. PLACEHOLDER.

⁵⁹ Editor's Note: The military overlay will be drafted and reviewed at the May worksession.